

Analysis Summary: Any Allergy

Phenotype Description

The "any_allergy" phenotype includes cases identified from the union of the following sources:

- "Allergies and Asthma" survey:
 - An allergic reaction (with either a positive allergy test, or with specific allergy symptoms) to any of the following:
 - Foods: chicken, eggs, milk, shellfish, fish, oats, peanut, soy, tree nuts, wheat, other
 - Plants: trees, weeds, grasses, other
 - Animals: cat, dog, other
 - Drugs: penicillin, sulfa drug, mycin drug, aspirin
 - Other: dust mites, mold, latex
- Your Medical History survey:
 - "Have you ever been diagnosed by a doctor with any of the following types of *allergies*?" (Seasonal allergy: Yes, No, I don't know)
- Either "Allergies and Asthma" or Asthma survey:
 - Allergic asthma cases (an asthma diagnosis with allergic trigger)

We identified controls that reported having no allergies of any kind, based on information from many sources. A control had to provide at least one negative response and no positive responses to any of these questions:

- "Your Health Profile" survey
 - "Have you ever been diagnosed by a doctor with any of the following types of *allergies*?" (Yes, No, I'm not sure)
 - Seasonal allergies
 - Asthma
 - Environmental (but not seasonal) allergy
 - Food allergy
 - Drug allergy
- "Asthma Symptoms" survey
 - "Have you ever been diagnosed by a doctor with asthma or bronchial asthma?" (Yes, No, I'm not sure)
 - "Do you currently have allergies?" (Yes, No, I'm not sure)
 - "Have you ever had any of the following? Please check all that apply."
 - Positive allergen skin prick test or positive allergen blood test
 - Atopic dermatitis/Eczema (chronic itchy and scaly skin rashes caused by allergies)
 - Allergic rhinitis (stuffed or dripping nose caused by allergies)
 - Allergic conjunctivitis (red, itchy, or painful eyes caused by allergies)
- "Allergies and Asthma" survey
 - Questions about a total of 38 allergens, including foods, plants, animals, molds, latex, medicines, vaccines, and other
 - "Have you ever had an asthma attack?" (Yes, No, I'm not sure)

Phenotype Statistics

The following table shows demographics of unrelated, European individuals included in the GWAS.

Phenotype	Group	Total	M	F	(0,30]	(30,45]	(45,60]	(60,Inf]
any_allergy	case	66973	32632	34341	9019	19985	18498	19471
	control	113768	65619	48149	16330	32255	30626	34557

The following table shows the phenotypic distribution across 23andMe genotyping platforms for individuals included in the GWAS.

Phenotype	Group	Total	v1/v2	v3	v4
any_allergy	case	66973	7913	50747	8313
	control	113768	6231	78553	28984

Null Model with Covariates

The following table shows results of fitting a model for the trait based on just the covariates. Principal coordinates have been standardized, so these effect sizes are in units of standard deviations.

	Estimate	Std. Error	z value	Pr(> z)	LRT	Pr(>Chi)
age	-0.002544	0.00030	-8.5	2.3×10^{-17}	71.9	2.2×10^{-17}
sexF	0.359546	0.00982	36.6	1.6×10^{-293}	1343.7	3.6×10^{-294}
pc.0	0.051553	0.00498	10.3	4.5×10^{-25}	108.4	2.2×10^{-25}
pc.1	-0.101442	0.00510	-19.9	6.5×10^{-88}	406.5	2.1×10^{-90}
pc.2	-0.064178	0.00503	-12.8	3.0×10^{-37}	164.4	1.2×10^{-37}
pc.3	0.025595	0.00490	5.2	1.7×10^{-7}	27.3	1.7×10^{-7}
pc.4	0.000556	0.00492	0.1	0.91	0.0	0.91

SNP-level QC information

The following table shows results for QC filters on the genotyped data:

	failed	passed
no filters	0	1030430
not V1/V2-only, chrM, chrY	33033	997397
parent-offspring test	2129	995294
MAF > 0%	3203	992310
HWE > 1e-20	48225	945039
gt.rate > 90%	30775	925423
batch effects	67182	893121

The following table shows results for QC filters on the imputed dosage data:

	failed	passed
no filters	0	13733809
MAF > 0%	0	13733809
imputation quality	0	13733809
batch effects	954316	12779493

The following table shows results for QC filters on the merged association test results:

	passed	total
imputed only	11972464	11972464
both passed	807014	12779478
genotyped only	86107	12865585
no test result	-5276	12860309
failed to converge	-14399	12845910

Genetic Association Tests

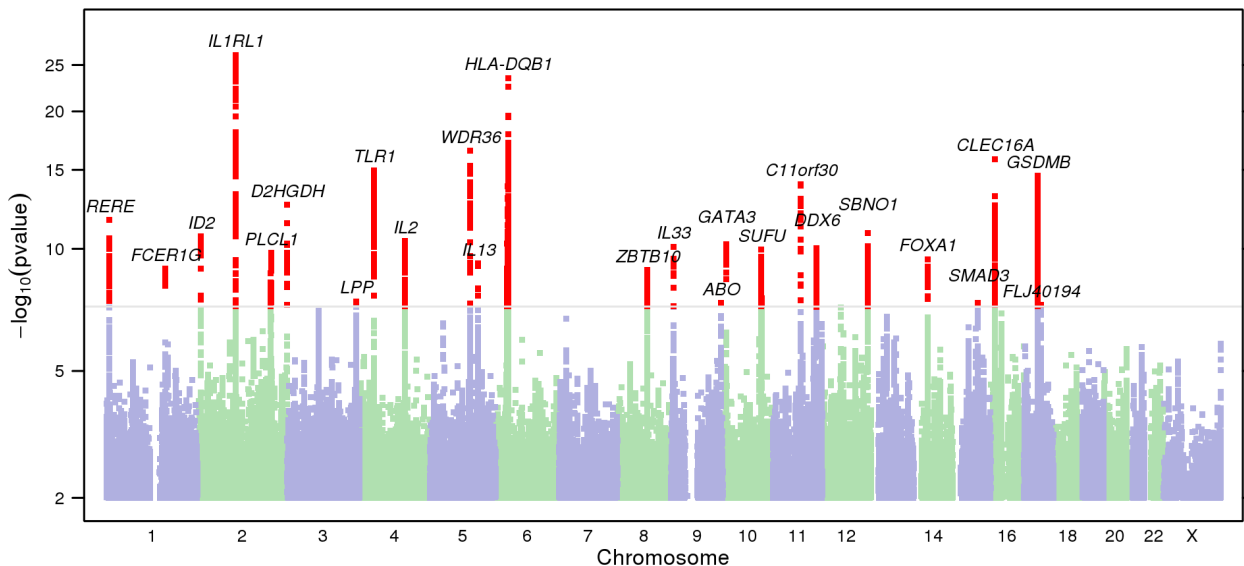
We performed logistic regression assuming an additive model for allelic effects, using the model:

$$any_allergy \sim age + sex + pc.0 + pc.1 + pc.2 + pc.3 + pc.4 + genotype$$

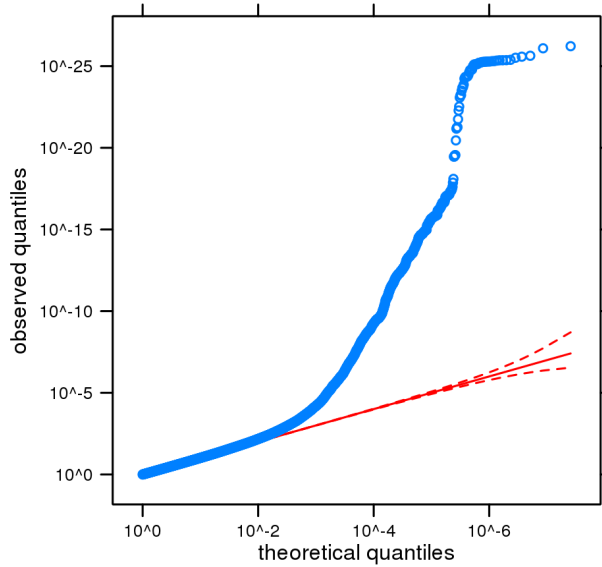
This genome-wide association analysis includes data from 66973 cases and 113768 controls of European ancestry, filtered to remove close relatives.

The results in this report have been adjusted for a genomic control inflation factor $\lambda=1.210$. The equivalent inflation factor for 1000 cases and 1000 controls $\lambda_{1000}=1.002$, and for 10000, $\lambda_{10000}=1.025$.

Manhattan Plot



Q-Q Plot of GWAS Results



Index SNPs for Strongest Associations

cytoband	assay.name	scaffold	position	alleles	src	pvalue	OR	95% CI	gene.context
2q12.1	rs950881	chr2	102932512	G/T	I	6.0×10^{-27}	0.890	[0.871,0.909]	[IL1RL1]
6p21.32	rs34004019	chr6	32626403	A/G	I	3.2×10^{-24}	0.902	[0.884,0.920]	HLA-DQA1--[HLA-DQB1]
5q22.1	rs1438673	chr5	110467499	C/T	I	3.2×10^{-17}	0.937	[0.923,0.951]	WDR36--[CAMK4]
16p13.13	rs11644510	chr16	11277358	C/T	I	1.5×10^{-16}	0.934	[0.920,0.950]	CLEC16A--[SOCS1]
4p14	rs11727978	chr4	38811051	A/T	I	1.1×10^{-15}	1.083	[1.062,1.104]	TLR1--[TLR6]
17q12	rs4795400	chr17	38067020	C/T	I	2.8×10^{-15}	0.941	[0.927,0.955]	[GSDMB]
11q13.5	rs7936323	chr11	76293758	A/G	I	1.1×10^{-14}	0.943	[0.929,0.957]	C11orf30--[LRRC32]
2q37.3	rs35061832	chr2	242692490	C/T	I	2.8×10^{-13}	1.100	[1.073,1.129]	[D2HGDH]
1p36.23	rs4908769	chr1	8701288	C/T	I	2.3×10^{-12}	1.061	[1.044,1.079]	[RERE]
12q24.31	rs9739070	chr12	123771032	A/G	I	1.3×10^{-11}	1.067	[1.047,1.087]	CDK2AP1--[SBNO1]
2p25.1	rs367023	chr2	8450123	A/G	I	2.1×10^{-11}	0.945	[0.929,0.960]	[---ID2]
4q27	rs148505069	chr4	123417564	A/G	I	3.8×10^{-11}	1.056	[1.039,1.073]	IL2--[---IL21]
10p14	rs1775550	chr10	9052742	A/G	I	5.6×10^{-11}	1.067	[1.047,1.088]	GATA3--[---]
9p24.1	rs10975488	chr9	6213829	A/G	I	7.7×10^{-11}	1.087	[1.060,1.115]	RANBP6--[---IL33]
11q23.3	rs11217036	chr11	118675772	C/T	I	9.3×10^{-11}	0.939	[0.921,0.957]	DDX6--[---CXCR5]
10q24.32	rs201333164	chr10	104278261	D/I	I	1.1×10^{-10}	1.062	[1.042,1.081]	[SUFU]
2q33.1	rs2164068	chr2	198943852	A/T	I	1.6×10^{-10}	1.051	[1.035,1.067]	[PLCL1]
14q21.1	rs61977073	chr14	38151255	A/G	I	3.5×10^{-10}	1.061	[1.041,1.080]	FOXA1--[---TTC6]
5q31.1	rs1295686	chr5	131995843	C/T	I	5.5×10^{-10}	1.061	[1.041,1.080]	[IL13]
1q23.3	rs2070902	chr1	161187665	C/T	I	1.0×10^{-9}	1.055	[1.037,1.073]	[FCER1G]
8q21.13	rs7824394	chr8	81292599	A/C	I	1.2×10^{-9}	0.952	[0.938,0.967]	TPD52--[---ZBTB10]
3q28	rs2030519	chr3	188119901	A/G	I	3.1×10^{-8}	1.043	[1.028,1.059]	[LPP]
15q22.33	rs17294280	chr15	67468285	A/G	I	3.6×10^{-8}	1.053	[1.034,1.073]	[SMAD3]
9q34.2	rs2519093	chr9	136141870	C/T	I	3.6×10^{-8}	1.055	[1.035,1.075]	[ABO]
17q21.32	rs28397663	chr17	47328183	C/T	I	4.3×10^{-8}	1.046	[1.029,1.062]	[FLJ40194]

Quality Statistics for Index SNPs

assay.name	is.v2	is.v3	is.v4	gt.rate	hw.p.value	p.date	freq.b	avg.rsqr	min.rsqr	p.batch	dose.b	qc.mask
rs950881	TRUE	TRUE	FALSE	0.9999	0.011	0.012	0.1505	0.9922	0.9540	0.095	0.1501	v2v3v4
rs34004019	FALSE	FALSE	FALSE					0.7345	0.6651	0.021	0.2631	v2v3v4
rs1438673	FALSE	FALSE	FALSE					0.9859	0.9678	0.045	0.5036	v2v3v4
rs11644510	FALSE	FALSE	FALSE					0.9258	0.9121	0.34	0.3749	v2v3v4
rs11727978	FALSE	FALSE	FALSE					0.9783	0.9621	0.080	0.8063	v2v3v4
rs4795400	FALSE	TRUE	TRUE	0.9986	0.96	0.90	0.4481	0.9999	0.9985	0.26	0.4470	v2v3v4
rs7936323	FALSE	FALSE	FALSE					0.9923	0.9866	1.0	0.5171	v2v3v4
rs35061832	FALSE	FALSE	FALSE					0.5371	0.4886	6.7×10^{-6}	0.6795	v3
rs4908769	TRUE	FALSE	FALSE	0.9998	0.47	0.25	0.3280	0.9361	0.9106	0.00092	0.3216	v2v3v4
rs9739070	FALSE	FALSE	FALSE					0.9273	0.9058	0.11	0.7793	v2v3v4
rs367023	FALSE	FALSE	FALSE					0.9879	0.9455	0.00048	0.2821	v2v3v4
rs148505069	FALSE	FALSE	FALSE					0.9804	0.9726	0.67	0.3267	v2v3v4
rs1775550	FALSE	FALSE	FALSE					0.9934	0.9515	0.65	0.1812	v2v3v4
rs10975488	FALSE	FALSE	FALSE					0.7519	0.7250	0.068	0.1353	v2v3v4
rs11217036	FALSE	FALSE	FALSE					0.9625	0.9566	0.021	0.1997	v2v3v4
rs201333164	FALSE	FALSE	FALSE					0.7051	0.6791	5.2×10^{-7}	0.5865	v2v3v4
rs2164068	FALSE	FALSE	FALSE					0.9784	0.9724	0.13	0.5052	v2v3v4
rs61977073	FALSE	FALSE	FALSE					0.9522	0.9315	0.94	0.2216	v2v3v4
rs1295686	TRUE	TRUE	TRUE	0.9997	0.028	0.058	0.2046	0.9994	0.9987	0.014	0.2058	v2v3v4
rs2070902	TRUE	TRUE	TRUE	0.9998	0.94	0.39	0.2506	0.9993	0.9987	0.31	0.2516	v2v3v4
rs7824394	FALSE	FALSE	FALSE					0.9629	0.9578	0.20	0.6217	v2v3v4
rs2030519	FALSE	FALSE	FALSE					0.9955	0.9848	0.00042	0.4914	v2v3v4
rs17294280	FALSE	FALSE	FALSE					0.8698	0.8235	0.26	0.2480	v2v3v4
rs2519093	FALSE	FALSE	FALSE					0.9922	0.9820	0.16	0.1962	v2v3v4
rs28397663	FALSE	FALSE	FALSE					0.9444	0.8911	0.00040	0.3626	v2v3v4

SNP Statistics in the GWAS Sample

assay.name	AA.0	AB.0	BB.0	im.num.0	dose.b.0	AA.1	AB.1	BB.1	im.num.1	dose.b.1
rs950881	60075	22387	2107	113768	0.1572	43271	14048	1177	66973	0.1402
rs34004019				113768	0.2703				66973	0.2535
rs1438673				113768	0.5091				66973	0.4912
rs11644510				113768	0.3810				66973	0.3655
rs11727978				113768	0.8034				66973	0.8172
rs4795400	31796	53500	22123	113768	0.4550	18375	29066	11545	66973	0.4421
rs7936323				113768	0.5254				66973	0.5113
rs35061832				78263	0.6754				50160	0.6876
rs4908769	3295	3070	730	113768	0.3193	4352	4468	1054	66973	0.3350
rs9739070				113768	0.7756				66973	0.7870
rs367023				113768	0.2890				66973	0.2804
rs148505069				113768	0.3245				66973	0.3376
rs1775550				113768	0.1778				66973	0.1870
rs10975488				113768	0.1308				66973	0.1380
rs11217036				113768	0.2038				66973	0.1935
rs201333164				113768	0.5837				66973	0.5956
rs2164068				113768	0.5022				66973	0.5153
rs61977073				113768	0.2174				66973	0.2261
rs1295686	72739	36353	4639	113768	0.2007	42074	21913	2965	66973	0.2081
rs2070902	64872	41985	6890	113768	0.2453	37053	25539	4373	66973	0.2562
rs7824394				113768	0.6271				66973	0.6166
rs2030519				113768	0.4854				66973	0.4958
rs17294280				113768	0.2447				66973	0.2525
rs2519093				113768	0.1924				66973	0.1998
rs28397663				113768	0.3612				66973	0.3718

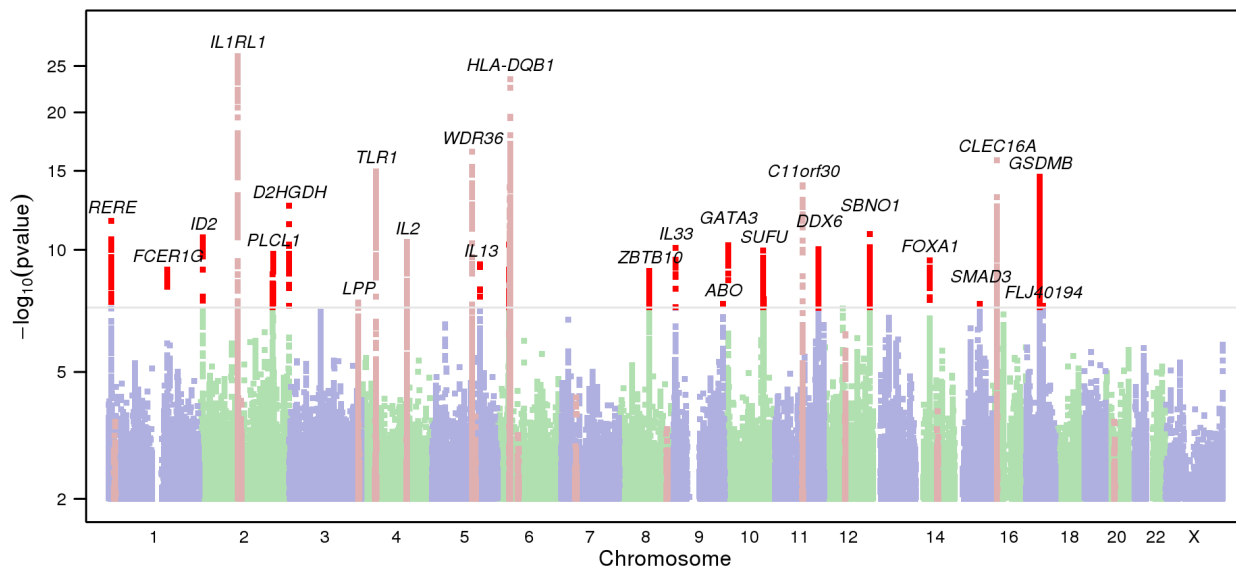
Annotations from NHGRI GWAS Catalog

The following table shows, for each index SNP, all entries in the NHGRI GWAS Catalog that are within 500kb and in at least moderate linkage disequilibrium ($r^2 > 0.5$).

region	position	our.name	our.pval	dist	rsqr	assay.name	pvalue	pubmed.id	trait	genes
2q12.1	102932512	rs950881	6.0×10 ⁻²⁷	-53048	0.829	rs10189629	2.0×10 ⁻¹⁶	23817569	Self-reported allergy	IL1RL2, IL1RL1
2q12.1	102932512	rs950881	6.0×10 ⁻²⁷	21105	0.968	rs3771180	2.0×10 ⁻¹⁵	21804549	Asthma	IL1RL1
2q12.1	102932512	rs950881	6.0×10 ⁻²⁷	22570	0.968	rs13408661	1.0×10 ⁻⁹	23028483	Asthma	IL1RL1, IL18R1
2q12.1	102932512	rs950881	6.0×10 ⁻²⁷	27698	0.948	rs3771175	5.0×10 ⁻¹¹	23817571	Allergic sensitization	IL1RL1, IL18R1, IL18RAP
2q12.1	102932512	rs950881	6.0×10 ⁻²⁷	34037	0.947	rs10197862	4.0×10 ⁻¹¹	24388013	Asthma and hay fever	IL1RL1
5q22.1	110467499	rs1438673	3.2×10 ⁻¹⁷	-61824	0.771	rs3806932	3.0×10 ⁻⁹	20208534	Eosinophilic esophagitis (pediatric)	WDR36
5q22.1	110467499	rs1438673	3.2×10 ⁻¹⁷	-59497	0.556	rs1898671	5.0×10 ⁻⁶	22036096	Allergic rhinitis	TSLP
5q22.1	110467499	rs1438673	3.2×10 ⁻¹⁷	0	1.000	rs1438673	3.0×10 ⁻¹¹	24388013	Asthma and hay fever	WDR36
5q22.1	110467499	rs1438673	3.2×10 ⁻¹⁷	0	1.000	rs1438673	2.0×10 ⁻²⁰	23817569	Self-reported allergy	WDR36, CAMK4, TSLP
16p13.13	11277358	rs11644510	1.5×10 ⁻¹⁶	-66943	0.608	rs9923856	6.0×10 ⁻⁶	23042114	Atopic dermatitis	CLEC16A
16p13.13	11277358	rs11644510	1.5×10 ⁻¹⁶	-48646	0.509	rs62026376	1.0×10 ⁻⁸	24388013	Asthma and hay fever	CLEC16A
16p13.13	11277358	rs11644510	1.5×10 ⁻¹⁶	-46655	0.504	rs7203459	2.0×10 ⁻⁷	23817569	Self-reported allergy	CLEC16A
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-26327	0.661	rs10004195	1.0×10 ⁻¹⁸	23652523	Helicobacter pylori serologic status	TLR10, TLR1, FAM114A1, TLR6, KLF3
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-18527	0.711	rs4543123	9.0×10 ⁻⁶	23743675	Alcohol consumption	Intergenic
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-11341	0.675	rs4833095	5.0×10 ⁻¹²	24388013	Asthma and hay fever	TLR1
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	500	0.804	rs2101521	5.0×10 ⁻²¹	23817569	Self-reported allergy	TLR1, TLR6, TLR10
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	1825	0.720	rs17616434	5.0×10 ⁻¹¹	23817571	Allergic sensitization	TLR1, TLR6, TLR10, ...
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-154643	0.804	rs12946510	4.0×10 ⁻³⁸	23128233	Inflammatory bowel disease	IKZF3, ZPBP2, GSDMB, ORMDL3, GSDMA
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-144761	0.875	rs907092	8.0×10 ⁻⁶	19458352	Primary biliary cirrhosis	IKZF3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-90551	0.751	rs9303277	7.0×10 ⁻⁶	23740937	Systemic lupus erythematosus and Systemic sclerosis	IKZF3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-90551	0.751	rs9303277	4.0×10 ⁻⁹	23000144	Primary biliary cirrhosis	IKZF3, ZPBP2, ...
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-90551	0.751	rs9303277	2.0×10 ⁻⁹	20639880	Primary biliary cirrhosis	IKZF3, ZPBP2, GSDMB, ORMDL3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-26257	0.943	rs2872507	2.0×10 ⁻⁶	21829393	Type 1 diabetes autoantibodies	ORMDL3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-26257	0.943	rs2872507	5.0×10 ⁻¹¹	21297633	Ulcerative colitis	IKZF3, ORMDL3, ...
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-26257	0.943	rs2872507	2.0×10 ⁻⁹	21102463	Crohn's disease	GSDML, ZPBP2, ORMDL3, IKZF3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-26257	0.943	rs2872507	9.0×10 ⁻⁷	20453842	Rheumatoid arthritis	IKZF3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-26257	0.943	rs2872507	5.0×10 ⁻⁹	18587394	Crohn's disease	ORMDL3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-15672	0.781	rs8067378	9.0×10 ⁻¹⁰	23817570	Cervical cancer	GSDMB
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-9823	0.963	rs8069176	5.0×10 ⁻⁶	24315451	Fractional exhaled nitric oxide (childhood)	ZPBP2, GSDMB
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-4824	0.974	rs2305480	6.0×10 ⁻²³	24241537	Asthma (childhood, severe)	GSDMB
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-4824	0.974	rs2305480	1.0×10 ⁻⁷	20860503	Asthma	GSDMB
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-4824	0.974	rs2305480	3.0×10 ⁻⁸	20228799	Ulcerative colitis	ORMDL3, ZPBP2, GSDML
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-2615	0.968	rs11078927	2.0×10 ⁻¹⁶	21804549	Asthma	GSDMB
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-780	0.822	rs2290400	6.0×10 ⁻¹³	19430480	Type 1 diabetes	ORMDL3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	2929	0.822	rs7216389	9.0×10 ⁻¹¹	17611496	Asthma	ORMDL3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	7011	0.762	rs9303280	9.0×10 ⁻⁹	23817569	Self-reported allergy	GSDMB, IKZF3
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	22324	0.769	rs4794820	1.0×10 ⁻⁸	22561531	Asthma	ORMDL3
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	-23075	0.570	rs7130588	4.0×10 ⁻¹³	23886662	Atopic dermatitis	C11orf30, LRR32
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	-23075	0.570	rs7130588	2.0×10 ⁻⁸	21907864	Asthma	LRR32
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	5436	0.898	rs2155219	1.0×10 ⁻¹⁸	23817571	Allergic sensitization	C11orf30, LRR32
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	5436	0.898	rs2155219	2.0×10 ⁻¹⁹	23817569	Self-reported allergy	C11orf30, LRR32
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	5436	0.898	rs2155219	4.0×10 ⁻³⁶	23128233	Inflammatory bowel disease	Intergenic
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	5436	0.898	rs2155219	1.0×10 ⁻⁸	22036096	IgE grass sensitization	C11orf30, LRR32
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	5436	0.898	rs2155219	4.0×10 ⁻⁸	22036096	Allergic rhinitis	C11orf30, LRR32
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	5436	0.898	rs2155219	5.0×10 ⁻¹⁶	21297633	Ulcerative colitis	Intergenic
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	7558	0.642	rs7927894	8.0×10 ⁻¹⁰	19349984	Atopic dermatitis	C11orf30
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	7558	0.642	rs7927894	1.0×10 ⁻⁹	18587394	Crohn's disease	C11orf30
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	7617	0.642	rs7927997	6.0×10 ⁻¹³	21102463	Crohn's disease	C11orf30
1p36.23	8701288	rs4908769	2.3×10 ⁻¹²	-278612	0.618	rs2252865	5.0×10 ⁻⁷	23453885	Autism spectrum disorder, attention deficit-hyperactivity disorder, bipolar disorder, major depressive disorder, and schizophrenia (combined)	SLC45A1, RERE, ENO1
1p36.23	8701288	rs4908769	2.3×10 ⁻¹²	-278612	0.618	rs2252865	3.0×10 ⁻⁶	21926974	Schizophrenia	
1p36.23	8701288	rs4908769	2.3×10 ⁻¹²	-253566	0.555	rs2120461	3.0×10 ⁻⁶	22504420	Bone mineral density	RERE
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-313413	0.565	rs7296418	2.0×10 ⁻⁶	21507922	Platelet counts	ABC9
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-130179	0.844	rs1727313	1.0×10 ⁻⁸	24509480	Type 2 diabetes	MPHOSPH9
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-114307	0.844	rs1790100	7.0×10 ⁻⁷	19525953	Multiple sclerosis	MPHOSPH9

12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-39609	0.551	rs11532322	2.0×10 ⁻⁸	23974872	Schizophrenia	C12orf65, ABCB9, ...
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	51679	0.936	rs7980687	8.0×10 ⁻⁹	22504419	Head circumference (infant)	SBNO1
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	52514	0.936	rs11830103	4.0×10 ⁻¹⁵	20881960	Height	SBNO1
2p25.1	8450123	rs367023	2.1×10 ⁻¹¹	-7875	0.878	rs10174949	1.0×10 ⁻⁷	23817569	Self-reported allergy	ID2
4q27	123417564	rs148505069	3.8×10 ⁻¹¹	-285072	0.937	rs4505848	5.0×10 ⁻¹³	19430480	Type 1 diabetes	IL2
4q27	123417564	rs148505069	3.8×10 ⁻¹¹	-219129	0.844	rs6534347	2.0×10 ⁻⁶	17554300	Type 1 diabetes	
4q27	123417564	rs148505069	3.8×10 ⁻¹¹	-88202	0.772	rs17388568	4.0×10 ⁻⁸	23817569	Self-reported allergy	ADAD1
4q27	123417564	rs148505069	3.8×10 ⁻¹¹	-88202	0.772	rs17388568	6.0×10 ⁻⁶	21829393	Type 1 diabetes autoantibodies	ADAD1
4q27	123417564	rs148505069	3.8×10 ⁻¹¹	-88202	0.772	rs17388568	9.0×10 ⁻⁷	21297633	Ulcerative colitis	IL21, IL2, ADAD1
4q27	123417564	rs148505069	3.8×10 ⁻¹¹	-64132	0.576	rs17454584	6.0×10 ⁻¹⁰	23817571	Allergic sensitization	IL2, ADAD1, ...
4q27	123417564	rs148505069	3.8×10 ⁻¹¹	-44431	0.787	rs2069772	1.0×10 ⁻⁶	22036096	IgE grass sensitization	IL2
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	-63991	0.859	rs10892279	1.0×10 ⁻¹²	21383967	Celiac disease and Rheumatoid arthritis	DDX6
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	68000	0.671	rs6421571	3.0×10 ⁻¹²	21399635	Primary biliary cirrhosis	CXCR5
2q33.1	198943852	rs2164068	1.6×10 ⁻¹⁰	-46957	0.873	rs6738825	6.0×10 ⁻⁶	23983088	Dermatomyositis	PLCL1
2q33.1	198943852	rs2164068	1.6×10 ⁻¹⁰	-46957	0.873	rs6738825	4.0×10 ⁻⁹	21102463	Crohn's disease	PLCL1
2q33.1	198943852	rs2164068	1.6×10 ⁻¹⁰	-32686	0.895	rs67031482	4.0×10 ⁻⁶	23743675	Alcohol consumption	PLCL1
2q33.1	198943852	rs2164068	1.6×10 ⁻¹⁰	-29780	0.895	rs10497813	6.0×10 ⁻¹⁰	23817569	Self-reported allergy	PLCL1
14q21.1	38151255	rs61977073	3.5×10 ⁻¹⁰	-74107	0.712	rs1998359	5.0×10 ⁻⁸	23817569	Self-reported allergy	FOXAI, TTC6
5q31.1	131995843	rs1295686	5.5×10 ⁻¹⁰	0	1.000	rs1295686	2.0×10 ⁻⁶	24241537	Asthma (childhood, severe)	IL13
5q31.1	131995843	rs1295686	5.5×10 ⁻¹⁰	0	1.000	rs1295686	2.0×10 ⁻¹⁷	23886662	Atopic dermatitis	IL13, RAD50
5q31.1	131995843	rs1295686	5.5×10 ⁻¹⁰	0	1.000	rs1295686	2.0×10 ⁻⁶	23042114	Atopic dermatitis	KIF3A, IL13
5q31.1	131995843	rs1295686	5.5×10 ⁻¹⁰	0	1.000	rs1295686	1.0×10 ⁻⁷	20860503	Asthma	IL13
5q31.1	131995843	rs1295686	5.5×10 ⁻¹⁰	121	0.992	rs20541	1.0×10 ⁻⁶	23817569	Self-reported allergy	Intergenic
5q31.1	131995843	rs1295686	5.5×10 ⁻¹⁰	121	0.992	rs20541	1.0×10 ⁻⁸	22286212	Hodgkin's lymphoma	IL13
5q31.1	131995843	rs1295686	5.5×10 ⁻¹⁰	121	0.992	rs20541	3.0×10 ⁻¹⁸	22075330	IgE levels	IL13
5q31.1	131995843	rs1295686	5.5×10 ⁻¹⁰	121	0.992	rs20541	5.0×10 ⁻¹⁵	19169254	Psoriasis	IL13
8q21.13	81292599	rs7824394	1.2×10 ⁻⁹	-24444	0.791	rs6473223	8.0×10 ⁻⁸	23817569	Self-reported allergy	TPD52, ZBTB10
8q21.13	81292599	rs7824394	1.2×10 ⁻⁹	-720	0.869	rs7009110	4.0×10 ⁻⁹	24388013	Asthma and hay fever	ZBTB10
8q21.13	81292599	rs7824394	1.2×10 ⁻⁹	15551	0.562	rs7000782	1.0×10 ⁻⁶	22197932	Atopic dermatitis	ZBTB10
3q28	188119901	rs2030519	3.1×10 ⁻⁸	-47388	0.697	rs9865818	3.0×10 ⁻¹⁰	23817571	Allergic sensitization	LPP, BCL6
3q28	188119901	rs2030519	3.1×10 ⁻⁸	-32273	0.861	rs9851967	9.0×10 ⁻⁸	22951725	Vitiligo	LPP
3q28	188119901	rs2030519	3.1×10 ⁻⁸	-7347	0.825	rs1464510	1.0×10 ⁻¹¹	20410501	Vitiligo	LPP
3q28	188119901	rs2030519	3.1×10 ⁻⁸	-7347	0.825	rs1464510	3.0×10 ⁻⁴⁰	20190752	Celiac disease	LPP
3q28	188119901	rs2030519	3.1×10 ⁻⁸	-7347	0.825	rs1464510	5.0×10 ⁻⁹	18311140	Celiac disease	LPP
3q28	188119901	rs2030519	3.1×10 ⁻⁸	9078	0.903	rs9860547	1.0×10 ⁻⁹	23817569	Self-reported allergy	LPP, BCL6
15q22.33	67468285	rs17294280	3.6×10 ⁻⁸	-25689	0.709	rs17293632	6.0×10 ⁻¹⁶	23128233	Inflammatory bowel disease	SMAD3
15q22.33	67468285	rs17294280	3.6×10 ⁻⁸	-25689	0.709	rs17293632	3.0×10 ⁻¹⁹	21102463	Crohn's disease	SMAD3
15q22.33	67468285	rs17294280	3.6×10 ⁻⁸	-17980	0.702	rs17228058	1.0×10 ⁻⁸	23817569	Self-reported allergy	SMAD3
15q22.33	67468285	rs17294280	3.6×10 ⁻⁸	0	1.000	rs17294280	4.0×10 ⁻⁹	24388013	Asthma and hay fever	SMAD3
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	7529	0.991	rs507666	4.0×10 ⁻¹¹	24386095	Lipid traits	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	7529	0.991	rs507666	3.0×10 ⁻⁹¹	21533024	Soluble ICAM-1	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	7529	0.991	rs507666	5.0×10 ⁻²⁹	18604267	Soluble ICAM-1	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12005	0.826	rs651007	6.0×10 ⁻²⁰	24816252	Blood metabolite levels	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12005	0.826	rs651007	1.0×10 ⁻⁵⁶	24094242	Serum alkaline phosphatase levels	SURF6, ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12005	0.826	rs651007	2.0×10 ⁻²⁵	23381943	End-stage coagulation	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12005	0.826	rs651007	6.0×10 ⁻⁹	21909109	Metabolite levels	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12005	0.826	rs651007	2.0×10 ⁻⁸²	20147318	E-selectin levels	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12298	0.826	rs579459	2.0×10 ⁻³²	24586186	Urinary metabolites (H-NMR features)	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12298	0.826	rs579459	3.0×10 ⁻⁸	24262325	Coronary artery disease or large artery stroke	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12298	0.826	rs579459	2.0×10 ⁻⁹	24262325	Coronary artery disease or ischemic stroke	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12298	0.826	rs579459	2.0×10 ⁻⁷	24262325	Coronary artery disease	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12298	0.826	rs579459	9.0×10 ⁻¹⁸	23222517	Red blood cell traits	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12298	0.826	rs579459	3.0×10 ⁻¹²³	22001757	Liver enzyme levels (alkaline phosphatase)	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12298	0.826	rs579459	4.0×10 ⁻¹⁴	21378990	Coronary heart disease	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12298	0.826	rs579459	2.0×10 ⁻⁴¹	20167578	Soluble levels of adhesion molecules	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12298	0.826	rs579459	1.0×10 ⁻²⁹	19729612	Soluble E-selectin levels	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12434	0.826	rs649129	9.0×10 ⁻³⁷	24816252	Blood metabolite ratios	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12997	0.826	rs495828	3.0×10 ⁻¹⁶	22672568	Venous thromboembolism	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12997	0.826	rs495828	3.0×10 ⁻¹²	20139978	Red blood cell count	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12997	0.826	rs495828	6.0×10 ⁻¹⁰	20139978	Hematological and biochemical traits	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	12997	0.826	rs495828	3.0×10 ⁻⁸	20066004	Angiotensin-converting enzyme activity	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	13130	0.983	rs635634	8.0×10 ⁻²²	20686565	LDL cholesterol	ABO
9q34.2	136141870	rs2519093	3.6×10 ⁻⁸	13130	0.983	rs635634	9.0×10 ⁻²¹	20686565	Cholesterol, total	ABO
17q21.32	47328183	rs28397663	4.3×10 ⁻⁸	74624	0.911	rs12940887	2.0×10 ⁻⁷	21909110	Blood pressure	ZNF652
17q21.32	47328183	rs28397663	4.3×10 ⁻⁸	112283	0.867	rs16948048	5.0×10 ⁻⁹	19430483	Diastolic blood pressure	ZNF652, PHB

Replication of GWAS Catalog Results



The following table shows, for each GWAS Catalog result for similar traits, our association test result for our best available proxy (distance < 100kb, $r^2 > 0.8$).

region	position	our.name	our.pval	dist	rsqr	assay.name	pvalue	pubmed.id	trait	genes
2q12.1	102960210	rs3771175	5.2×10^{-26}	0	1.000	rs3771175	5.0×10^{-11}	23817571	Allergic sensitization	IL1RL1, IL18R1, IL18RAP
2q13	112470155	rs11122895	0.059	0	1.000	rs11122895	2.0×10^{-6}	23817571	Allergic sensitization	ANAPC1
3q28	188072513	rs9865818	3.9×10^{-6}	0	1.000	rs9865818	3.0×10^{-10}	23817571	Allergic sensitization	LPP, BCL6
4p14	38812876	rs17616434	6.0×10^{-14}	0	1.000	rs17616434	5.0×10^{-11}	23817571	Allergic sensitization	TLR1, TLR6, TLR10, MIR574, FAM114A1
4q27	123353432	rs17454584	6.6×10^{-9}	0	1.000	rs17454584	6.0×10^{-10}	23817571	Allergic sensitization	IL2, ADAD1, KIAA1109, IL21
5q22.1	110190052	rs10056340	1.4×10^{-7}	0	1.000	rs10056340	5.0×10^{-14}	23817571	Allergic sensitization	SLC25A46, TSLP, WDR36, CAMK4
6p21.33	31354182	rs6932730		0	1.000	rs6932730	4.0×10^{-8}	23817571	Allergic sensitization	HLA-B, MICA, HLA-C, MICB
6p21.32	32626311	rs6906021	2.6×10^{-15}	0	1.000	rs6906021	2.0×10^{-12}	23817571	Allergic sensitization	HLA-DQB1, HLA-DQA1,
6p12.1	56210764	rs16887812	0.74	0	1.000	rs16887812	7.0×10^{-6}	23817571	Allergic sensitization	COL21A1
8q24.21	128815029	rs4410871	0.0019	0	1.000	rs4410871	5.0×10^{-10}	23817571	Allergic sensitization	MYC, PVT1
11q13.5	76299194	rs2155219	1.1×10^{-13}	0	1.000	rs2155219	1.0×10^{-18}	23817571	Allergic sensitization	C11orf30, LRRC32
12q13.3	57489709	rs1059513	6.0×10^{-7}	0	1.000	rs1059513	1.0×10^{-14}	23817571	Allergic sensitization	STAT6
5q22.1	110146446	rs17513503	2.5×10^{-6}	0	1.000	rs17513503	7.0×10^{-7}	22036096	Allergic rhinitis	TMEM232, SLCA25A46
5q22.1	110408002	rs1898671	1.3×10^{-15}	0	1.000	rs1898671	5.0×10^{-6}	22036096	Allergic rhinitis	TSLP
5q23.1	115975656	rs6898653	0.92	0	1.000	rs6898653	1.0×10^{-6}	22036096	Allergic rhinitis	SEMA6A
7p14.1	42264679	rs4724100	0.74	0	1.000	rs4724100	2.0×10^{-6}	22036096	Allergic rhinitis	GLI3
11q13.5	76299194	rs2155219	1.1×10^{-13}	0	1.000	rs2155219	4.0×10^{-8}	22036096	Allergic rhinitis	C11orf30, LRRC32
14q23.1	60683430	rs216518	0.48	0	1.000	rs216518	2.0×10^{-6}	22036096	Allergic rhinitis	PPM1A, DHRS7
16p13.13	11158885	rs887864	2.3×10^{-9}	0	1.000	rs887864	1.0×10^{-6}	22036096	Allergic rhinitis	CLEC16A
20p11.21	25206654	rs1044573	0.26	0	1.000	rs1044573	1.0×10^{-6}	22036096	Allergic rhinitis	ENTPD6

Nearby Nonsynonymous SNPs

region	position	our.name	our.pval	dist	rsqr	assay.name	gene	aa.chg
2q12.1	102932512	rs950881	6.0×10^{-27}	22956	0.557	rs1041973	IL1RL1	A78E
6p21.32	32626403	rs34004019	3.2×10^{-24}	-17277	0.528	rs1071630	HLA-DQA1	F41S
6p21.32	32626403	rs34004019	3.2×10^{-24}	6367	0.645	rs1049069	HLA-DQB1	Y62?
4p14	38811051	rs11727978	1.1×10^{-15}	-36162	0.823	rs4129009	TLR10	I775V
4p14	38811051	rs11727978	1.1×10^{-15}	-11341	0.675	rs4833095	TLR1	N248S
17q12	38067020	rs4795400	2.8×10^{-15}	-38386	0.807	rs11557467	ZPBP2	S173I
17q12	38067020	rs4795400	2.8×10^{-15}	-4824	0.974	rs2305480	GSDMB	P311S
17q12	38067020	rs4795400	2.8×10^{-15}	-4803	0.833	rs2305479	GSDMB	G304R
2q37.3	242692490	rs35061832	2.8×10^{-13}	-1815	0.741	rs1106639	D2HGDH	V338I
12q24.31	123771032	rs9739070	1.3×10^{-11}	35187	0.943	rs1060105	SBNO1	S729N
2q33.1	198943852	rs2164068	1.6×10^{-10}	6388	0.984	rs1064213	PLCL1	V667I
5q31.1	131995843	rs1295686	5.5×10^{-10}	121	0.992	rs20541	IL13	Q144R

Nearby Expression QTLs

region	position	our.name	our.pval	dist	rsqr	assay.name	eqtl.dist	eqtl.gene	eqtl.pval	eqtl.rsqr	tissue	pubmed.id
6p21.32	32626403	rs34004019	3.2×10^{-24}	-23973	0.826	rs17211510	24814	HLA-DQB1	0.00011	0.187	T-cell	19644074
6p21.32	32626403	rs34004019	3.2×10^{-24}	1503	0.518	rs1063349	81213	HLA-DQA2	2.2×10^{-47}	0.432	Lymphoblastoid	24037378
6p21.32	32626403	rs34004019	3.2×10^{-24}	10031	0.534	rs9274660	40478	HLA-DQA1	1.7×10^{-56}	0.493	Lymphoblastoid	24037378
6p21.32	32626403	rs34004019	3.2×10^{-24}	10031	0.534	rs9274660	274	HLA-DQB1	2.8×10^{-61}	0.522	Lymphoblastoid	24037378
5q22.1	110467499	rs1438673	3.2×10^{-17}	-60757	0.778	rs3806933	982	TSLP	5.8×10^{-9}	0.088	Lymphoblastoid	24037378
5q22.1	110467499	rs1438673	3.2×10^{-17}	-60757	0.778	rs3806933	0	TSLP	3.5×10^{-11}	0.454	Esophagus_Mucosa	23715323
5q22.1	110467499	rs1438673	3.2×10^{-17}	-58432	0.778	rs2289277	0	TSLP	2.8×10^{-8}	0.286	Skin_Sun_Exposed_Lower_leg	23715323
5q22.1	110467499	rs1438673	3.2×10^{-17}	-58432	0.778	rs2289277	0	TSLP	3.0×10^{-8}	0.293	Adipose_Subcutaneous	23715323
5q22.1	110467499	rs1438673	3.2×10^{-17}	-40171	0.826	rs10050834	0	TSLP	2.1×10^{-12}	0.390	Artery_Tibial	23715323
5q22.1	110467499	rs1438673	3.2×10^{-17}	254	0.836	rs1438672	0	TSLP	3.7×10^{-8}	0.287	Thyroid	23715323
4p14	38811051	rs11727978	1.1×10^{-15}	-331593	0.958	rs5743592	-5187	TLR1	9.4×10^{-7}		Liver	18462017
4p14	38811051	rs11727978	1.1×10^{-15}	-267229	0.766	rs17582830	-92536	TLR10	5.6×10^{-18}	0.300	Lymphoblastoid	17873874

4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-267229	0.766	rs17582830	-38898	TLR6	2.5×10 ⁻¹⁵	0.258	Lymphoblastoid	17873874
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-267229	0.766	rs17582830	-69329	TLR1	1.5×10 ⁻¹⁴	0.245	Lymphoblastoid	17873874
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-7988	0.958	rs5743592	25160	TLR6	1.4×10 ⁻⁸	0.024	Monocyte	20502693
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-5032	0.975	rs5743563	22204	TLR6	0.00013	0.183	Lymphoblastoid	19644074
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-4200	0.975	rs5743556	51587	TLR6	8.2×10 ⁻¹⁴	0.140	Lymphoblastoid	24037378
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-3687	0.957	rs201774433	22753	TLR10	1.4×10 ⁻¹¹	0.116	Lymphoblastoid	24037378
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-2466	0.975	rs114719937	49853	TLR1	2.9×10 ⁻¹²	0.123	Lymphoblastoid	24037378
4p14	38811051	rs11727978	1.1×10 ⁻¹⁵	-1127	0.983	rs73236625	59374	FAM114A1	2.1×10 ⁻⁹	0.092	Lymphoblastoid	24037378
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-161913	0.708	rs9747973	172206	GSDMB	2.5×10 ⁻⁸	0.080	Lymphoblastoid	24037378
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-90551	0.751	rs9303277	100827	ORMDL3	0.0	0.402	Lymphoblastoid	19644074
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-90551	0.751	rs9303277	0	GSDMB	2.4×10 ⁻¹³	0.394	Whole_Blood	23715323
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-35882	0.817	rs9905959	0	PGAP3	9.7×10 ⁻⁷	0.235	Thyroid	23715323
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-17787	0.807	rs12950743	24764	ZBP2	1.5×10 ⁻⁶	0.061	Lymphoblastoid	24037378
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-15672	0.781	rs8067378	9500	GSDML	2.6×10 ⁻⁶	0.263	Lymphoblastoid	19644074
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-15672	0.781	rs8067378	32506	ORMDL3	9.1×10 ⁻³⁷	0.352	Lymphoblastoid	24037378
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	-10904	0.942	rs11651596	0	ORMDL3	5.7×10 ⁻⁹	0.277	Whole_Blood	23715323
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	1023	0.818	rs869402	47602	IKZF3	3.0×10 ⁻⁷	0.020	Monocyte	20502693
17q12	38067020	rs4795400	2.8×10 ⁻¹⁵	21397	0.865	rs4795405	0	PGAP3	1.3×10 ⁻⁷	0.334	Esophagus_Muscularis	23715323
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-313413	0.565	rs7296418	0	ABC9	1.2×10 ⁻⁶	0.307	Heart_Left_Ventricle	23715323
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-198537	0.572	rs10848428	378318	SNRNP35	7.0×10 ⁻⁵	0.055	B-Cell	22469664
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-166979	0.655	rs7975763	0	MPHOSPH9	1.8×10 ⁻⁷	0.328	Esophagus_Muscularis	23715323
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-152488	0.838	rs1790116	18536	MPHOSPH9	3.0×10 ⁻¹⁶	0.047	Monocyte	20502693
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-144050	0.851	rs1106240	118729	CDK2AP1	8.4×10 ⁻¹¹	0.141	B-Cell	22469664
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-138102	0.720	rs1727302	0	ABC9	2.6×10 ⁻⁶	0.215	Skin_Sun_Exposed_Lower_leg	23715323
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-46152	0.936	rs58809476	0	CDK2AP1	1.2×10 ⁻²⁰	0.698	Esophagus_Mucosa	23715323
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-31921	0.936	rs1879380	6600	CDK2AP1	1.3×10 ⁻²¹	0.279	Monocyte	22469664
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-31921	0.936	rs1879380	0	282O18.3	4.1×10 ⁻²⁰	0.687	Esophagus_Mucosa	23715323
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	-17	0.950	rs71444571	0	CDK2AP1	4.1×10 ⁻⁷	0.244	Skin_Sun_Exposed_Lower_leg	23715323
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	62489	0.880	rs9300255	0	CDK2AP1	3.8×10 ⁻⁷	0.253	Adipose_Subcutaneous	23715323
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	62489	0.880	rs9300255	0	282O18.3	2.1×10 ⁻⁷	0.262	Adipose_Subcutaneous	23715323
12q24.31	123771032	rs9739070	1.3×10 ⁻¹¹	114905	0.901	rs28855757	129056	CDK2AP1	1.0×10 ⁻¹⁹	0.200	Lymphoblastoid	24037378
2p25.1	8450123	rs367023	2.1×10 ⁻¹¹	-9091	0.627	rs6734135	377943	ID2	9.0×10 ⁻¹⁰	0.028	Monocyte	20502693
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	-427276	0.603	rs12365699	-122873	DDX6	1.9×10 ⁻⁵		Liver	18462017
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	-427276	0.603	rs12365699	317693	CCDC153	0.0016		Liver	18462017
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	-119374	0.555	rs11216943	865608	FXDY2	0.00026	0.168	T-cell	19644074
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	-114915	0.546	rs73001406	0	TREH	2.2×10 ⁻⁶	0.266	Esophagus_Mucosa	23715323
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	-47399	0.840	rs74676029	0	TREH	4.3×10 ⁻⁸	0.429	Stomach	23715323
2q33.1	198943852	rs2164068	1.6×10 ⁻¹⁰	-63371	0.820	rs1318867	67998	PLCL1	3.0×10 ⁻²⁸	0.083	Monocyte	20502693
2q33.1	198943852	rs2164068	1.6×10 ⁻¹⁰	-36709	0.857	rs9712275	0	PLCL1	3.0×10 ⁻¹¹	0.341	Whole_Blood	23715323
5q31.1	131995843	rs1295686	5.5×10 ⁻¹⁰	602	0.963	rs1295685	-265463	SLC22A5	0.00035	0.045	B-Cell	22469664
1q23.3	161187665	rs2070902	1.0×10 ⁻⁹	-28518	0.932	rs4233366	29543	FCER1G	1.4×10 ⁻¹¹	0.151	Monocyte	22469664
1q23.3	161187665	rs2070902	1.0×10 ⁻⁹	-8981	0.557	rs3924264	162917	USF1	7.6×10 ⁻¹⁵	0.043	Monocyte	20502693
1q23.3	161187665	rs2070902	1.0×10 ⁻⁹	2048	0.549	rs4489574	0	FCER1G	2.7×10 ⁻⁹	0.027	Monocyte	20502693
3q28	188119901	rs2030519	3.1×10 ⁻⁸	-14845	0.947	rs9864529	641581	BCL6	5.2×10 ⁻¹⁰	0.028	Monocyte	20502693
17q21.32	47328183	rs28397663	4.3×10 ⁻⁸	-47882	0.578	rs4794029	3296	GNGT2	1.5×10 ⁻¹⁵	0.045	Monocyte	20502693
17q21.32	47328183	rs28397663	4.3×10 ⁻⁸	120163	0.862	rs12952581	719351	ITGA3	1.7×10 ⁻⁵	0.064	B-Cell	22469664

Nearby Clinical Variants

source	region	our.name	our.pval	dist	rsqr	assay.name	gene	phenotype	accession
clinvar	4p14	rs11727978	1.1×10 ⁻¹⁵	-11341	0.675	rs4833095	TLR1	Leprosy 5	NCBI curation
omim	4p14	rs11727978	1.1×10 ⁻¹⁵	-11341	0.675	rs4833095	TLR1		
clinvar	5q31.1	rs1295686	5.5×10 ⁻¹⁰	121	0.992	rs20541	IL13	Asthma, susceptibility to	NCBI curation
clinvar	5q31.1	rs1295686	5.5×10 ⁻¹⁰	121	0.992	rs20541	IL13	Allergic rhinitis	SNOMED CT61582004

Shared Associations with Other 23andMe Phenotypes

region	position	our.name	our.pval	dist	rsqr	assay.name	phenotype	pvalue	gene.context	match
1p36.23	8460247	rs138050288	4.9×10 ⁻¹¹	-11843	0.510	rs11121178	PD_all_pop_con	5.8×10 ⁻⁷	[RERE]	
1p36.23	8460247	rs138050288	4.9×10 ⁻¹¹	0	1.000	rs138050288	any_animal_allergy	1.6×10 ⁻¹⁰	[RERE]	TRUE
1p36.23	8460247	rs138050288	4.9×10 ⁻¹¹	0	1.000	rs138050288	any_plant_allergy	5.6×10 ⁻¹²	[RERE]	TRUE
1p36.23	8460247	rs138050288	4.9×10 ⁻¹¹	0	1.000	rs138050288	dust_mites_allergy	1.2×10 ⁻⁸	[RERE]	TRUE
1p36.23	8701288	rs4908769	2.3×10 ⁻¹²	0	1.000	rs4908769	mold_allergy	9.6×10 ⁻⁸	[RERE]	TRUE
1p36.23	8701288	rs4908769	2.3×10 ⁻¹²	0	1.000	rs4908769	seasonal_allergies_broad	3.2×10 ⁻¹²	[RERE]	TRUE
1p36.23	8817863	rs12403640	1.7×10 ⁻⁷	76483	0.853	rs12068123	tonsillectomy	5.6×10 ⁻⁹	RERE--[]--ENO1	FALSE
1p34.3	35384605	rs6699355	6.4×10 ⁻⁵	0	1.000	rs6699355	iqb.nail_biting_frequency	1.1×10 ⁻⁷	ZMYM6NB	FALSE
1p31.1	72689882	rs201048040	1.8×10 ⁻⁵	0	1.000	rs201048040	any_immune	3.1×10 ⁻⁹	[NEGR1]	TRUE
1p31.1	72753112	rs61765650	5.3×10 ⁻⁶	-28703	0.904	rs34723450	hayfever_all	2.6×10 ⁻⁸	[NEGR1]	TRUE
1p31.1	72729142	rs1620977	9.2×10 ⁻⁶	0	1.000	rs1620977	seasonal_allergies_broad	8.2×10 ⁻⁷	[NEGR1]	TRUE
1p31.1	72729142	rs1620977	9.2×10 ⁻⁶	0	1.000	rs1620977	personality_ideas	3.9×10 ⁻⁷	[NEGR1]	TRUE
1p31.1	72753112	rs61765650	5.3×10 ⁻⁶	-8162	0.904	rs34874247	any_asthma	4.6×10 ⁻⁷	[NEGR1]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	-3561	0.922	rs3101339	astigmatism	2.0×10 ⁻⁷	NEGR1[]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	-3561	0.922	rs3101339	iqb.lost_20lbs	1.6×10 ⁻⁸	NEGR1[]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	-3561	0.922	rs3101339	juvenile_obesity	6.9×10 ⁻⁹	NEGR1[]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	-3561	0.922	rs3101339	any_psychiatric	1.2×10 ⁻⁷	NEGR1[]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	-3561	0.922	rs3101339	depression	2.4×10 ⁻⁸	NEGR1[]	TRUE
1p31.1	72753112	rs61765650	5.3×10 ⁻⁶	844	0.991	rs2568953	heart_metabolic_disease_burden	2.1×10 ⁻¹²	NEGR1--[]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	60899	1.000	rs1460943	obesity	6.5×10 ⁻¹⁰	NEGR1--[]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	72914	0.933	rs6699744	bmi	4.1×10 ⁻²⁶	NEGR1--[]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	72914	0.933	rs6699744	weight	7.8×10 ⁻²³	NEGR1--[]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	85009	0.702	rs7531118	heart_metabolic_disease	2.9×10 ⁻¹⁴	NEGR1--[]	TRUE
1p31.1	72752230	rs2815765	1.0×10 ⁻⁵	85009	0.702	rs7531118	high_cholesterol_broad	6.5×10 ⁻⁷	NEGR1--[]	TRUE

1p31.1	72755105	rs2568952	1.1×10^{-5}	97668	0.525	rs1961767	iqb.took_meds_depression_or_anxiety	4.2×10^{-7}	NEGR1---[]	TRUE
1p31.1	72764289	rs2815757	5.8×10^{-6}	92702	0.586	rs2613476	any_plant_allergy	1.5×10^{-7}	NEGR1---[]	TRUE
1q21.3	154416935	rs12753254	5.0×10^{-5}	1480	0.960	rs11265613	eczema	3.7×10^{-7}	[IL6R]	TRUE
1q21.3	154416935	rs12753254	5.0×10^{-5}	2957	0.889	rs12730933	iqb.took_meds_anti_tnf_alpha	7.1×10^{-7}	[IL6R]	FALSE
1q21.3	154416935	rs12753254	5.0×10^{-5}	10035	0.943	rs2228145	mosquito_severe	1.3×10^{-8}	[IL6R]	TRUE
1q21.3	154416935	rs12753254	5.0×10^{-5}	11348	0.927	rs12133641	mosquito_combined	3.8×10^{-9}	[IL6R]	FALSE
1q23.3	161187665	rs2070902	1.0×10^{-9}	-28518	0.932	rs4233366	allergic_asthma	4.8×10^{-8}	[JADAMTS4 B4GALT3--]ADAMTS4	TRUE
1q23.3	161187665	rs2070902	1.0×10^{-9}	-28518	0.932	rs4233366	any_asthma	4.8×10^{-15}	[JADAMTS4 B4GALT3--]ADAMTS4	TRUE
1q23.3	161187665	rs2070902	1.0×10^{-9}	-28518	0.932	rs4233366	any_plant_allergy	3.4×10^{-7}	[JADAMTS4 B4GALT3--]ADAMTS4	TRUE
1q23.3	161187665	rs2070902	1.0×10^{-9}	-28518	0.932	rs4233366	seasonal_allergies_broad	5.0×10^{-9}	[JADAMTS4	TRUE
1q23.3	161187665	rs2070902	1.0×10^{-9}	0	1.000	rs2070902	any_animal_allergy	6.2×10^{-10}	[FCER1G]	TRUE
1q23.3	161187665	rs2070902	1.0×10^{-9}	0	1.000	rs2070902	hayfever_all	8.3×10^{-8}	[FCER1G]	TRUE
1q23.3	161187665	rs2070902	1.0×10^{-9}	0	1.000	rs2070902	iqb.took_meds_asthma_or_lung	6.9×10^{-8}	[FCER1G]	TRUE
1q24.2	167436300	rs1617988	1.4×10^{-6}	-16461	0.727	rs2988279	dust_mites_allergy	1.7×10^{-8}	[CD247]	TRUE
1q24.2	167436300	rs1617988	1.4×10^{-6}	-2880	0.795	rs1723018	any_asthma	1.4×10^{-8}	[CD247]	TRUE
1q24.2	167436300	rs1617988	1.4×10^{-6}	-2023	0.865	rs2995091	any_animal_allergy	5.7×10^{-8}	[CD247]	TRUE
1q31.1	190014535	rs17374746	1.2×10^{-5}	-14409	0.785	rs12034854	depression_anxiety_meds	1.1×10^{-7}	[]--FAM5C	TRUE
1q31.1	190014535	rs17374746	1.2×10^{-5}	40283	0.901	rs11802882	any_psychiatric	5.5×10^{-7}	[]--FAM5C	TRUE
1q31.1	190163532	rs1855240	1.9×10^{-5}	-33323	0.926	rs1333321	heart_metabolic_disease_burden	6.1×10^{-7}	[FAM5C]	TRUE
1q31.1	190270315	rs199810491	4.5×10^{-5}	-54128	0.522	rs1537429	heart_metabolic_disease	2.4×10^{-7}	[FAM5C]	TRUE
1q31.1	190335053	rs1442568	1.7×10^{-5}	90736	0.680	rs12089382	bmi	4.4×10^{-11}	[FAM5C]	TRUE
1q31.1	190335053	rs1442568	1.7×10^{-5}	90736	0.680	rs12089382	weight	8.6×10^{-12}	[FAM5C]	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	-11430	0.816	rs346835	mosquito_combined	2.3×10^{-13}	[]---ID2	FALSE
2p25.1	8450123	rs367023	2.1×10^{-11}	-11430	0.816	rs346835	other_animal_allergy	4.1×10^{-7}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	0	1.000	rs367023	any_animal_allergy	9.9×10^{-19}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	0	1.000	rs367023	any_food_allergy	3.1×10^{-10}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	0	1.000	rs367023	any_plant_allergy	1.4×10^{-11}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	0	1.000	rs367023	dust_mites_allergy	1.5×10^{-13}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	0	1.000	rs367023	hayfever_all	7.5×10^{-8}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	0	1.000	rs367023	mold_allergy	2.2×10^{-12}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	0	1.000	rs367023	mosquito_severe	1.0×10^{-7}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	0	1.000	rs367023	seasonal_allergies_broad	1.6×10^{-11}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	7957	0.694	rs13412757	any_asthma	1.3×10^{-8}	[]---ID2	TRUE
2p25.1	8450123	rs367023	2.1×10^{-11}	7957	0.694	rs13412757	insect_allergy	3.9×10^{-8}	[]---ID2	TRUE
2p23.2	28628595	rs11340945	1.3×10^{-5}	-23716	0.811	rs906805	rosacea_all	5.5×10^{-9}	BRE--[]--FOSL2	TRUE
2p23.2	28628595	rs11340945	1.3×10^{-5}	-966	0.906	rs11127150	rosacea_dx	1.9×10^{-8}	[FOSL2]	TRUE
2p23.2	28628595	rs11340945	1.3×10^{-5}	18489	0.763	rs1509394	iqb.gray_amount	4.8×10^{-7}	FOSL2--[]--PLB1	TRUE
2q12.1	102773999	rs2287048	2.4×10^{-18}	-34178	0.956	rs62156387	iqb.recharge_by_socializing	9.0×10^{-7}	IL1R2--[]--IL1R1	FALSE
2q12.1	102932512	rs950881	6.0×10^{-27}	-18870	0.905	rs202011557	any_asthma	5.1×10^{-31}	IL1RL2--[]-- IL1RL1	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	-18298	0.937	rs11690644	any_immune	1.4×10^{-12}	IL1RL1	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	-3895	0.958	rs72823628	juvenile_allergic_asthma	4.6×10^{-18}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	0	1.000	rs950881	any_animal_allergy	5.9×10^{-37}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	0	1.000	rs950881	any_food_allergy	1.9×10^{-12}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	0	1.000	rs950881	any_plant_allergy	1.6×10^{-25}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	0	1.000	rs950881	dust_mites_allergy	8.6×10^{-27}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	0	1.000	rs950881	hayfever_all	9.7×10^{-18}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	0	1.000	rs950881	mold_allergy	2.4×10^{-23}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	0	1.000	rs950881	seasonal_allergies_broad	2.7×10^{-28}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	8525	0.834	rs11679893	insect_allergy	5.2×10^{-8}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	27698	0.948	rs3771175	milk_allergy	5.1×10^{-8}	[IL1RL1]	TRUE
2q12.1	102966310	rs10208293	1.5×10^{-16}	0	1.000	rs10208293	allergic_asthma	7.7×10^{-17}	[IL1RL1]	TRUE
2q12.1	102966310	rs10208293	1.5×10^{-16}	0	1.000	rs10208293	juvenile_asthma	2.6×10^{-13}	[IL1RL1]	TRUE
2q12.1	102966310	rs10208293	1.5×10^{-16}	0	1.000	rs10208293	other_animal_allergy	1.1×10^{-10}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	34278	0.833	rs10185897	other_plant_allergy	3.8×10^{-7}	[IL1RL1]	TRUE
2q12.1	102932512	rs950881	6.0×10^{-27}	64539	0.906	rs72823677	iqb.took_meds_asthma_or_lung	6.6×10^{-22}	[IL18R1]	TRUE
2q12.1	102960210	rs3771175	5.2×10^{-26}	97682	0.877	rs11465702	tree_nuts_allergy	1.7×10^{-7}	[IL18RAP]	TRUE
2q12.1	102966549	rs10197862	7.4×10^{-26}	96971	0.917	rs11465723	any_drug_allergy	3.5×10^{-7}	[IL18RAP]	TRUE
2q32.1	188180409	rs62174474	1.7×10^{-5}	0	1.000	rs62174474	any_drug_allergy	1.1×10^{-7}	ZSWIM2---[]-- CALCR1	TRUE
2q33.1	198417987	rs58837777	1.5×10^{-6}	-89181	0.524	rs2564388	anxiety	7.3×10^{-7}	[COQ10B]	TRUE
2q33.1	198556418	rs75909879	1.3×10^{-5}	-71932	0.601	rs6714697	depression_anxiety_meds	5.2×10^{-9}	[RFTN2]	TRUE
2q33.1	198494065	rs61054961	8.2×10^{-9}	74011	0.577	rs11687698	any_skin_cancer	3.3×10^{-7}	RFTN2--[]--MARS2	TRUE
2q33.1	198943852	rs2164068	1.6×10^{-10}	-60900	0.862	rs11681663	morning_person	7.3×10^{-18}	[PLCL1]	FALSE
2q33.1	198943852	rs2164068	1.6×10^{-10}	0	1.000	rs2164068	any_animal_allergy	3.7×10^{-13}	[PLCL1]	TRUE
2q33.1	198943852	rs2164068	1.6×10^{-10}	0	1.000	rs2164068	any_plant_allergy	2.0×10^{-11}	[PLCL1]	TRUE
2q33.1	198943852	rs2164068	1.6×10^{-10}	0	1.000	rs2164068	seasonal_allergies_broad	4.7×10^{-11}	[PLCL1]	TRUE
2q33.1	198943852	rs2164068	1.6×10^{-10}	6388	0.984	rs1064213	dust_mites_allergy	1.7×10^{-11}	[PLCL1]	TRUE
2q33.1	199684067	rs10931833	5.6×10^{-5}	85116	0.659	rs1456522	age_first_menses	8.9×10^{-10}	PLCL1---[]--- SATB2	TRUE
2q33.3	208339634	rs12618605	3.3×10^{-5}	0	1.000	rs12618605	any_immune	2.4×10^{-7}	KLF7---[]--CREB1	TRUE
2q36.3	228751874	rs1721359	1.5×10^{-5}	-12739	1.000	rs6738964	any_asthma	4.7×10^{-7}	[DAW1]	TRUE
2q36.3	228751874	rs1721359	1.5×10^{-5}	0	1.000	rs1721359	any_animal_allergy	1.7×10^{-7}	[DAW1]	TRUE
2q36.3	229021373	rs10933239	3.4×10^{-5}	-3139	0.847	rs61325615	bmi	6.2×10^{-7}	[SPHKAP]	TRUE
2q37.3	242692490	rs35061832	2.8×10^{-13}	-10461	0.724	rs78147778	any_immune	1.2×10^{-8}	[D2HGDH]	TRUE
2q37.3	242692490	rs35061832	2.8×10^{-13}	-10461	0.724	rs78147778	other_animal_allergy	7.6×10^{-8}	[D2HGDH]	TRUE
2q37.3	242692490	rs35061832	2.8×10^{-13}	-1815	0.741	rs1106639	other_plant_allergy	1.8×10^{-8}	[D2HGDH]	TRUE
2q37.3	242692490	rs35061832	2.8×10^{-13}	6150	0.636	rs34290285	allergic_asthma	2.6×10^{-13}	[D2HGDH]	TRUE
2q37.3	242692490	rs35061832	2.8×10^{-13}	6150	0.636	rs34290285	any_animal_allergy	9.9×10^{-20}	[D2HGDH]	TRUE
2q37.3	242692490	rs35061832	2.8×10^{-13}	6150	0.636	rs34290285	any_asthma	1.8×10^{-15}	[D2HGDH]	TRUE
2q37.3	242692490	rs35061832	2.8×10^{-13}	6150	0.636	rs34290285	hayfever_all	1.1×10^{-10}	[D2HGDH]	TRUE
2q37.3	242692490	rs35061832	2.8×10^{-13}	6150	0.636	rs34290285	juvenile_allergic_asthma	4.3×10^{-9}	[D2HGDH]	TRUE
2q37.3	242692490	rs35061832	2.8×10^{-13}	18792	0.525	rs62192043	iqb.took_meds_asthma_or_lung	5.6×10^{-22}	D2HGDH--[]-- GAL3ST2	TRUE
2q37.3	242703317	rs146871826	1.5×10^{-9}	24692	0.526	rs62193062	any_plant_allergy	8.6×10^{-15}	[GAL3ST2]	TRUE

2q37.3	242703317	rs146871826	1.5×10^{-9}	24692	0.526	rs62193062	dust_mites_allergy	5.7×10^{-11}	[GAL3ST2]	TRUE
2q37.3	242703317	rs146871826	1.5×10^{-9}	24692	0.526	rs62193062	mold_allergy	8.1×10^{-11}	[GAL3ST2]	TRUE
2q37.3	242703317	rs146871826	1.5×10^{-9}	24692	0.526	rs62193062	seasonal_allergies_broad	1.7×10^{-18}	[GAL3ST2]	TRUE
2q37.3	242703363	rs6754066	5.3×10^{-9}	36399	0.532	rs73106178	any_food_allergy	9.4×10^{-8}	[GAL3ST2]	TRUE
3p12.1	85007576	3:85007576:C_CCA	1.3×10^{-5}	0	1.000	3:85007576:C_CCA	any_drug_allergy	4.7×10^{-8}	[]CADM2	TRUE
3p12.1	85007576	3:85007576:C_CCA	1.3×10^{-5}	0	1.000	3:85007576:C_CCA	penicillin_allergy	3.3×10^{-7}	[]CADM2	TRUE
3p12.1	85397224	rs67824428	2.7×10^{-6}	-632	0.531	rs146511066	personality_conscientiousness	2.3×10^{-7}	[CADM2]	
3p12.1	85518580	rs2875907	1.0×10^{-5}	-99009	0.503	rs140717279	personality_neuroticism	6.2×10^{-7}	[CADM2]	
3p12.1	85592573	rs143013783	7.5×10^{-8}	-45775	0.616	rs10433500	iqb.adventurous	1.8×10^{-9}	[CADM2]	
3p12.1	85579606	rs62252499	8.7×10^{-8}	0	1.000	rs62252499	any_plant_allergy	8.4×10^{-9}	[CADM2]	TRUE
3p12.1	85606521	rs4856586	2.3×10^{-7}	-2504	0.535	rs199744186	adhd_add_meds	2.2×10^{-9}	[CADM2]	
3q13.33	121715319	rs9868257	2.8×10^{-5}	13527	0.849	rs2001212	any_immune	5.4×10^{-7}	[ILDR1]	TRUE
3q23	141093285	rs7624084	8.3×10^{-5}	-17201	0.612	rs9866391	nearsightedness	7.7×10^{-19}	[ZBTB38]	FALSE
3q23	141093285	rs7624084	8.3×10^{-5}	0	1.000	rs7624084	myopia_v_hyperopia	3.7×10^{-13}	[ZBTB38]	TRUE
3q23	141093285	rs7624084	8.3×10^{-5}	924	0.905	rs6440003	haircolor	1.1×10^{-15}	[ZBTB38]	FALSE
3q23	141093285	rs7624084	8.3×10^{-5}	13660	0.744	rs199550106	any_animal_allergy	4.2×10^{-7}	[ZBTB38]	
3q23	141093285	rs7624084	8.3×10^{-5}	13669	0.811	rs13077048	farsightedness	5.9×10^{-9}	[ZBTB38]	TRUE
3q23	141093285	rs7624084	8.3×10^{-5}	13669	0.811	rs13077048	iqb.farsighted	7.3×10^{-9}	[ZBTB38]	TRUE
3q23	141093285	rs7624084	8.3×10^{-5}	24743	0.899	rs13068733	height	9.1×10^{-119}	[ZBTB38]	TRUE
3q23	141093285	rs7624084	8.3×10^{-5}	47081	0.827	rs6763927	weight	1.2×10^{-24}	[ZBTB38]	TRUE
3q23	141093285	rs7624084	8.3×10^{-5}	54129	0.801	rs7650602	shoe_size_normalized	4.8×10^{-13}	[ZBTB38]	TRUE
3q23	141093285	rs7624084	8.3×10^{-5}	56741	0.796	rs7625643	male_pattern_meta	4.0×10^{-7}	[ZBTB38]	FALSE
3q23	141093285	rs7624084	8.3×10^{-5}	56741	0.796	rs7625643	iqb.stretch_marks	2.5×10^{-7}	[ZBTB38]	TRUE
3q23	141093285	rs7624084	8.3×10^{-5}	56741	0.796	rs7625643	stretch_marks_any	8.2×10^{-7}	[ZBTB38]	TRUE
3q27.3	187643346	rs2253944	2.5×10^{-7}	-3971	0.889	rs7633342	other_animal_allergy	3.0×10^{-7}	BCL6---[]---LPP	TRUE
3q28	188119901	rs2030519	3.1×10^{-8}	-31783	0.861	rs11715549	squamous_cell_carcinoma	8.7×10^{-8}	[LPP]	TRUE
3q28	188119901	rs2030519	3.1×10^{-8}	-27355	0.620	rs191177147	any_skin_cancer	8.1×10^{-10}	[LPP]	TRUE
3q28	188119901	rs2030519	3.1×10^{-8}	-27355	0.620	rs191177147	basal_cell_carcinoma	2.2×10^{-11}	[LPP]	TRUE
3q28	188119901	rs2030519	3.1×10^{-8}	-4669	1.000	rs9834159	any_non_melanoma_skin_cancer	1.5×10^{-10}	[LPP]	TRUE
3q28	188119901	rs2030519	3.1×10^{-8}	-2822	1.000	rs6790260	dust_mites_allergy	1.8×10^{-11}	[LPP]	TRUE
3q28	188119901	rs2030519	3.1×10^{-8}	0	1.000	rs2030519	any_plant_allergy	7.1×10^{-10}	[LPP]	TRUE
3q28	188119901	rs2030519	3.1×10^{-8}	0	1.000	rs2030519	seasonal_allergies_broad	2.4×10^{-9}	[LPP]	TRUE
3q28	188119901	rs2030519	3.1×10^{-8}	5661	0.693	rs200794374	mosquito_combined	4.2×10^{-9}	[LPP]	
3q28	188119901	rs2030519	3.1×10^{-8}	13538	0.869	rs6808893	any_animal_allergy	1.5×10^{-16}	[LPP]	TRUE
3q28	188119901	rs2030519	3.1×10^{-8}	15882	0.665	rs12485444	hypothyroidism	5.5×10^{-7}	[LPP]	FALSE
3q28	188398976	rs113387455	4.6×10^{-6}	1581	0.764	rs56328339	any_immune	1.8×10^{-8}	[LPP]	TRUE
3q28	188398976	rs113387455	4.6×10^{-6}	3495	0.792	rs73196739	any_asthma	6.5×10^{-9}	[LPP]	TRUE
3q29	196459301	rs9847505	6.6×10^{-5}	-22104	0.833	rs9858181	psoriasis	1.2×10^{-7}	[CEP19]	TRUE
4p15.1	28417524	rs35543451	5.4×10^{-5}	-30677	0.598	rs10654614	mold_allergy	6.4×10^{-7}	[]	
4p14	38811051	rs11727978	1.1×10^{-15}	-23799	0.812	rs67719080	other_animal_allergy	1.2×10^{-8}	TLR10-[]--TLR1	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	allergic_asthma	8.1×10^{-11}	[TLR1]	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	any_animal_allergy	2.3×10^{-31}	[TLR1]	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	any_asthma	3.9×10^{-11}	[TLR1]	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	any_plant_allergy	4.3×10^{-23}	[TLR1]	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	dust_mites_allergy	2.3×10^{-15}	[TLR1]	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	hayfever_all	8.7×10^{-13}	[TLR1]	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	iqb.took_meds_asthma_or_lung	3.4×10^{-15}	[TLR1]	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	juvenile_allergic_asthma	4.9×10^{-12}	[TLR1]	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	mold_allergy	5.3×10^{-10}	[TLR1]	TRUE
4p14	38807654	rs5743551	3.8×10^{-15}	-9006	0.690	rs5743618	seasonal_allergies_broad	2.4×10^{-22}	[TLR1]	TRUE
4p14	38811051	rs11727978	1.1×10^{-15}	35928	0.694	rs7687447	rosacea_all	2.6×10^{-9}	[TLR6]	TRUE
4p14	38811051	rs11727978	1.1×10^{-15}	51070	0.705	rs3860069	any_food_allergy	6.3×10^{-7}	TLR6-[]-FAM114A1BANK1---[]--SLC39A8	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	-41821	0.820	rs35225200	iqb.rotator_cuff_tear	4.3×10^{-7}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	iqb.excess_hair	3.8×10^{-8}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	any_animal_allergy	2.3×10^{-7}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	bmi	7.7×10^{-30}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	high_plasma_glucose	9.0×10^{-7}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	iqb.low_hdl	3.6×10^{-14}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	obesity	3.0×10^{-9}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	weight	2.3×10^{-17}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	height	6.0×10^{-11}	[SLC39A8]	FALSE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	iqb.arthritis_any	2.2×10^{-7}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	0	1.000	rs13107325	osteoarthritis_broad	1.3×10^{-8}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	9373	0.931	rs13135092	iqb.stretch_marks	3.0×10^{-10}	[SLC39A8]	TRUE
4q24	103188709	rs13107325	9.7×10^{-5}	9373	0.931	rs13135092	stretch_marks_any	4.1×10^{-9}	[SLC39A8]	TRUE
4q27	123215381	rs28854492	4.2×10^{-11}	67781	0.878	rs201757131	allergic_asthma	8.4×10^{-7}	[KIAA1109]	
4q27	123215381	rs28854492	4.2×10^{-11}	67782	0.954	rs33976078	any_asthma	8.5×10^{-8}	[KIAA1109]	
4q27	123417564	rs148505069	3.8×10^{-11}	0	1.000	rs148505069	any_immune	4.3×10^{-11}	IL2--[]---IL21	TRUE
4q27	123417564	rs148505069	3.8×10^{-11}	0	1.000	rs148505069	any_plant_allergy	4.8×10^{-10}	IL2--[]---IL21	TRUE
4q27	123417564	rs148505069	3.8×10^{-11}	0	1.000	rs148505069	seasonal_allergies_broad	1.4×10^{-10}	IL2--[]---IL21	TRUE
4q27	123417564	rs148505069	3.8×10^{-11}	62920	0.591	rs72669177	dust_mites_allergy	3.0×10^{-8}	IL2---[]--IL21	TRUE
4q27	123417564	rs148505069	3.8×10^{-11}	62920	0.591	rs72669177	iqb.took_meds_asthma_or_lung	2.9×10^{-7}	IL2---[]--IL21	TRUE
4q27	123417564	rs148505069	3.8×10^{-11}	74853	0.782	rs146583707	any_animal_allergy	1.8×10^{-15}	IL2---[]--IL21	TRUE
4q27	123417564	rs148505069	3.8×10^{-11}	74853	0.782	rs146583707	mold_allergy	8.2×10^{-7}	IL2---[]--IL21	TRUE
5p15.1	16866472	rs34875944	3.1×10^{-5}	3669	0.830	rs6896380	any_drug_allergy	9.2×10^{-7}	[MYO10]	TRUE
5p15.1	16866472	rs34875944	3.1×10^{-5}	3669	0.830	rs6896380	any_plant_allergy	5.1×10^{-7}	[MYO10]	TRUE
5p15.1	16866472	rs34875944	3.1×10^{-5}	3669	0.830	rs6896380	dust_mites_allergy	2.9×10^{-9}	[MYO10]	TRUE
5p15.1	16866472	rs34875944	3.1×10^{-5}	3669	0.830	rs6896380	seasonal_allergies_broad	8.6×10^{-7}	[MYO10]	TRUE
5p13.2	35862841	rs7717955	2.2×10^{-7}	-59264	0.734	rs931555	any_autoimmune	7.7×10^{-7}	[SPEF2]	TRUE
5p13.2	35862841	rs7717955	2.2×10^{-7}	-12692	0.987	rs34463936	eczema	1.4×10^{-11}	SPEF2--[]-IL7R	TRUE
5p13.2	35862841	rs7717955	2.2×10^{-7}	-5137	0.993	rs11567694	mold_allergy	5.9×10^{-9}	[IL7R]	TRUE
5p13.2	35862841	rs7717955	2.2×10^{-7}	-4991	0.993	rs10213865	any_animal_allergy	5.6×10^{-8}	[IL7R]	TRUE
5p13.2	35862841	rs7717955	2.2×10^{-7}	0	1.000	rs7717955	any_immune	4.6×10^{-9}	[IL7R]	TRUE
5p13.2	35862841	rs7717955	2.2×10^{-7}	0	1.000	rs7717955	any_plant_allergy	1.9×10^{-9}	[IL7R]	TRUE
5p13.2	35862841	rs7717955	2.2×10^{-7}	0	1.000	rs7717955	seasonal_allergies_broad	1.1×10^{-10}	[IL7R]	TRUE

5p13.1	40492655	rs7714574	7.7×10^{-6}	-1865	0.942	rs10440635	hayfever_all	1.5×10^{-7}	[]---PTGER4	TRUE
5p13.1	40492655	rs7714574	7.7×10^{-6}	0	1.000	rs7714574	any_animal_allergy	1.2×10^{-10}	[]---PTGER4	TRUE
5p13.1	40492655	rs7714574	7.7×10^{-6}	0	1.000	rs7714574	any_plant_allergy	4.0×10^{-12}	[]---PTGER4	TRUE
5p13.1	40492655	rs7714574	7.7×10^{-6}	0	1.000	rs7714574	seasonal_allergies_broad	7.9×10^{-9}	[]---PTGER4 TMEM161B---[]--	TRUE
5q14.3	88030670	rs13158247	4.5×10^{-5}	-37955	0.885	rs5869436	iqb.cry_easily	2.6×10^{-9}	MEF2C SLC25A46---[]---	TRUE
5q22.1	110183117	rs72776704	1.1×10^{-6}	28003	0.539	rs200877516	gerd_broad	7.5×10^{-7}	TSLP SLC25A46---[]-	TRUE
5q22.1	110401872	rs1837253	1.1×10^{-9}	0	1.000	rs1837253	any_asthma	3.3×10^{-31}	TSLP SLC25A46---[]-	TRUE
5q22.1	110401872	rs1837253	1.1×10^{-9}	0	1.000	rs1837253	hayfever_all	1.5×10^{-15}	TSLP SLC25A46---[]-	TRUE
5q22.1	110401872	rs1837253	1.1×10^{-9}	0	1.000	rs1837253	iqb.took_meds_asthma_or_lung	1.8×10^{-24}	TSLP SLC25A46---[]-	TRUE
5q22.1	110401872	rs1837253	1.1×10^{-9}	0	1.000	rs1837253	juvenile_allergic_asthma	1.4×10^{-13}	TSLP SLC25A46---[]-	TRUE
5q22.1	110401872	rs1837253	1.1×10^{-9}	0	1.000	rs1837253	juvenile_asthma	2.8×10^{-11}	TSLP SLC25A46---[]-	TRUE
5q22.1	110401872	rs1837253	1.1×10^{-9}	0	1.000	rs1837253	mold_allergy	5.0×10^{-15}	TSLP	TRUE
5q22.1	110467499	rs1438673	3.2×10^{-17}	-37011	0.579	rs17623144	allergic_asthma	7.9×10^{-14}	[WDR36] WDR36-[]--	TRUE
5q22.1	110467499	rs1438673	3.2×10^{-17}	0	1.000	rs1438673	any_animal_allergy	1.2×10^{-29}	CAMK4 WDR36-[]--	TRUE
5q22.1	110467499	rs1438673	3.2×10^{-17}	0	1.000	rs1438673	any_food_allergy	1.3×10^{-8}	CAMK4 WDR36-[]--	TRUE
5q22.1	110467499	rs1438673	3.2×10^{-17}	0	1.000	rs1438673	any_plant_allergy	3.4×10^{-19}	CAMK4 WDR36-[]--	TRUE
5q22.1	110467499	rs1438673	3.2×10^{-17}	0	1.000	rs1438673	dust_mites_allergy	2.8×10^{-19}	CAMK4 WDR36-[]--	TRUE
5q22.1	110467499	rs1438673	3.2×10^{-17}	0	1.000	rs1438673	other_animal_allergy	1.7×10^{-10}	CAMK4 WDR36-[]--	TRUE
5q22.1	110467499	rs1438673	3.2×10^{-17}	0	1.000	rs1438673	seasonal_allergies_broad	8.2×10^{-21}	CAMK4 P4HA2-[]--	TRUE
5q31.1	131580220	rs6871350	2.9×10^{-5}	-1612	0.969	rs4705927	mosquito_severe	8.1×10^{-16}	PDLIM4	TRUE
5q31.1	131793772	rs1023518	7.8×10^{-7}	10195	0.748	rs10060626	high_cholesterol_broad	8.7×10^{-7}	C5orf56-[]--IRF1	TRUE
5q31.1	131989136	rs3091307	3.8×10^{-6}	-87911	0.983	rs2244012	any_asthma	2.1×10^{-16}	[RAD50]	TRUE
5q31.1	131989136	rs3091307	3.8×10^{-6}	0	1.000	rs3091307	mold_allergy	2.3×10^{-7}	RAD50-[]-IL13	TRUE
5q31.1	131995843	rs1295686	5.5×10^{-10}	0	1.000	rs1295686	seasonal_allergies_broad	1.1×10^{-8}	[IL13]	TRUE
5q31.1	131995843	rs1295686	5.5×10^{-10}	121	0.992	rs20541	psoriasis	7.2×10^{-12}	[IL13]	FALSE
5q31.1	131995843	rs1295686	5.5×10^{-10}	121	0.992	rs20541	other_animal_allergy	8.6×10^{-7}	[IL13]	TRUE
5q31.1	131995843	rs1295686	5.5×10^{-10}	121	0.992	rs20541	iqb.shampoo_type	3.8×10^{-7}	[IL13]	FALSE
5q31.1	131995843	rs1295686	5.5×10^{-10}	121	0.992	rs20541	rosacea_all	1.4×10^{-17}	[IL13]	FALSE
5q31.1	131995843	rs1295686	5.5×10^{-10}	121	0.992	rs20541	rosacea_dx	2.4×10^{-7}	[IL13]	FALSE
5q31.1	131995843	rs1295686	5.5×10^{-10}	602	0.963	rs1295685	iqb.alcohol_flush	3.4×10^{-9}	[IL13]	FALSE
5q31.1	131995843	rs1295686	5.5×10^{-10}	657	0.963	rs848	any_animal_allergy	1.9×10^{-13}	[IL13]	TRUE
5q31.1	131995843	rs1295686	5.5×10^{-10}	657	0.963	rs848	any_food_allergy	1.6×10^{-7}	[IL13]	TRUE
5q31.1	131995843	rs1295686	5.5×10^{-10}	657	0.963	rs848	any_plant_allergy	1.5×10^{-10}	[IL13]	TRUE
5q31.1	131995843	rs1295686	5.5×10^{-10}	657	0.963	rs848	dust_mites_allergy	2.6×10^{-7}	[IL13]	TRUE
5q31.1	131995843	rs1295686	5.5×10^{-10}	657	0.963	rs848	eczema	7.9×10^{-21}	[IL13]	TRUE
5q31.1	131995843	rs1295686	5.5×10^{-10}	657	0.963	rs848	insect_allergy	3.3×10^{-7}	[IL13]	TRUE
5q31.1	131995843	rs1295686	5.5×10^{-10}	657	0.963	rs848	iqb.took_meds_asthma_or_lung	1.2×10^{-10}	[IL13]	TRUE
5q31.1	131999494	rs2243204	3.2×10^{-7}	1892	0.675	rs2243210	other_food_allergy	5.3×10^{-7}	IL13-[]-IL4	TRUE
5q31.1	132007974	rs34142320	8.9×10^{-6}	0	1.000	rs34142320	peanut_allergy	3.2×10^{-8}	IL13-[]-IL4 ZMAT2---[]--	TRUE
5q31.3	140222157	rs3733705	1.5×10^{-5}	-35220	0.742	rs11167605	dust_mites_allergy	4.0×10^{-8}	AX746964 GNPDA1-[]--	TRUE
5q31.3	141489921	rs12653866	5.4×10^{-5}	-43618	0.560	rs12654522	any_autoimmune	3.5×10^{-7}	NDFIP1	TRUE
5q31.3	141516479	rs72418053	1.1×10^{-5}	-21545	0.676	rs10068717	any_animal_allergy	3.3×10^{-7}	[NDFIP1]	TRUE
5q31.3	141516479	rs72418053	1.1×10^{-5}	0	1.000	rs72418053	any_immune	1.3×10^{-7}	[NDFIP1]	TRUE
5q31.3	141516479	rs72418053	1.1×10^{-5}	13282	0.594	rs200634877	any_asthma	2.5×10^{-8}	[NDFIP1]	TRUE
6p22.1	28331818	rs35875412	7.4×10^{-5}	-90829	0.503	rs202185649	vitiligo	4.6×10^{-8}	[ZSCAN26] PGBD1[]--	TRUE
6p22.1	28331818	rs35875412	7.4×10^{-5}	-61234	0.671	rs2799081	nearsightedness	1.2×10^{-12}	ZSCAN31	TRUE
6p22.1	28400295	rs7765989	3.9×10^{-5}	-99959	0.841	rs17312661	adh_add_meds	3.4×10^{-7}	[ZSCAN31] ZSCAN31-[]--	FALSE
6p22.1	28400295	rs7765989	3.9×10^{-5}	-94432	0.838	rs140136728	dental_superstar	5.6×10^{-7}	ZKSCAN3 ZSCAN31-[]-	TRUE
6p22.1	28400295	rs7765989	3.9×10^{-5}	-88874	0.820	rs6456816	nose_concavity	9.5×10^{-7}	ZKSCAN3 SCAND3-[]---	FALSE
6p22.1	28565827	rs6901724	6.8×10^{-6}	0	1.000	rs6901724	mold_allergy	8.1×10^{-7}	TRIM27	TRUE
6p22.1	29910717	rs1064588	5.2×10^{-11}	0	1.000	rs1064588	dust_mites_allergy	4.1×10^{-7}	[HLA-A]	TRUE
6p22.1	29910717	rs1064588	5.2×10^{-11}	0	1.000	rs1064588	mold_allergy	4.3×10^{-7}	[HLA-A]	TRUE
6p22.1	30024677	rs9366752	4.2×10^{-6}	15614	0.864	rs10947050	chicken_pox	1.1×10^{-10}	[RNF39] MUC22-[]--	TRUE
6p21.33	31043568	rs78868039	5.8×10^{-5}	-6690	0.534	rs62399063	blood_sugar_meds	3.9×10^{-8}	C6orf15	TRUE
6p21.33	31219982	rs9264185	3.1×10^{-5}	-28346	0.643	rs1639110	any_autoimmune	8.1×10^{-70}	HCG27-[]--HLA-C	TRUE
6p21.33	31359394	rs762460	5.4×10^{-9}	-59197	0.564	rs79158921	depression_anxiety_meds	4.3×10^{-10}	[HLA-C]-[]-MICA	FALSE
6p21.33	31300247	rs76819587	1.2×10^{-5}	2037	0.512	rs4947308	iqb.iodine_treatment_ever	1.2×10^{-9}	HLA-C-[]-MICA	FALSE
6p21.33	31414906	rs2516465	1.5×10^{-14}	-92709	0.561	rs2428494	allergic_asthma	6.6×10^{-10}	HLA-C-[]-MICA	TRUE
6p21.33	31414906	rs2516465	1.5×10^{-14}	-92709	0.561	rs2428494	juvenile_allergic_asthma	2.2×10^{-9}	HLA-C-[]-MICA	TRUE
6p21.33	31324641	rs1050518	7.9×10^{-11}	23	0.646	rs9266184	any_skin_cancer	1.5×10^{-7}	[HLA-C]-[]-MICA	FALSE
6p21.33	31326251	rs9405084	3.2×10^{-8}	1083	0.512	rs2523589	acid_reflux	9.0×10^{-7}	HLA-C-[]-MICA	FALSE
6p21.33	31355957	rs67643039	1.1×10^{-6}	3018	0.527	rs13196525	iqb.dandruff_frequency	8.8×10^{-8}	HLA-C---[]-MICA	FALSE
6p21.33	31359394	rs762460	5.4×10^{-9}	4037	0.596	rs10649173	cavities_many	5.2×10^{-7}	HLA-C---[]-MICA	TRUE
6p21.33	31359394	rs762460	5.4×10^{-9}	4037	0.596	rs10649173	number_of_cavities	1.5×10^{-8}	HLA-C---[]-MICA	TRUE
6p21.33	31371521	rs2252223	4.7×10^{-12}	-6918	0.787	rs2905708	other_animal_allergy	8.6×10^{-9}	HLA-C---[]-MICA	TRUE
6p21.33	31412948	rs2596465	6.8×10^{-7}	0	1.000	rs2596465	iqb.mononucleosis	2.5×10^{-9}	MICA-[]-MICA	FALSE
6p21.33	31419065	rs3130901	9.5×10^{-7}	-5256	0.563	rs9267091	iqb.ever_diagnosed_autoimmune	6.9×10^{-21}	MICA-[]-MICA	TRUE
6p21.33	31574525	rs28895016	4.0×10^{-7}	59308	0.610	rs369630161	gender_difference_male	4.4×10^{-7}	[CSNK2B]	TRUE
6p21.33	31749804	rs743399	2.3×10^{-6}	74511	0.616	rs2395079	juvenile_asthma	4.3×10^{-7}	C6orf48-[]-NEU1	TRUE
6p21.33	31941629	rs116420479	6.3×10^{-7}	-11278	0.530	rs2734331	iqb.low_hdl	3.6×10^{-7}	[SKIV2L]	FALSE
6p21.33	31894626	rs3020644	1.9×10^{-5}	78390	0.532	rs28361032	tongue_flip	1.9×10^{-7}	C4B_2-[]CYP21A2	TRUE
6p21.32	32127477	rs3134950	3.1×10^{-6}	-20338	0.602	rs3096698	any_cvd	1.2×10^{-9}	FKBPL-[]-PRRT1	TRUE
6p21.32	32127477	rs3134950	3.1×10^{-6}	-20338	0.602	rs3096698	blood_pressure_meds	6.3×10^{-10}	FKBPL-[]-PRRT1	TRUE

6p21.32	32127477	rs3134950	3.1×10^{-6}	-20338	0.602	rs3096698	high_blood_pressure	3.0×10^{-9}	FKBPL-[]-PRRT1	TRUE
6p21.32	32109979	rs204999	8.6×10^{-9}	39837	0.545	rs3134940	bmi	2.3×10^{-8}	[RNF5,AGER] HLA-DRA--[]--	TRUE
6p21.32	32383050	rs4959027	3.0×10^{-6}	46532	0.558	rs9268851	multiple_sclerosis	5.3×10^{-85}	HLA-DRB5 HLA-DRB5--[]--	TRUE
6p21.32	32573471	rs9270965	2.5×10^{-5}	-12047	0.657	rs9270591	eczema	3.0×10^{-9}	HLA-DQA1 HLA-DRB5--[]--	FALSE
6p21.32	32667595	rs1794279	4.6×10^{-5}	-89962	0.656	rs535777	hyperthyroidism	5.8×10^{-19}	HLA-DQA1 HLA-DRB5--[]--	TRUE
6p21.32	32583490	rs35534739	8.0×10^{-7}	-878	0.522	rs3104414	rheumatoid_arthritis	2.8×10^{-39}	HLA-DQA1 HLA-DRB5--[]--	FALSE
6p21.32	32586934	rs141215917	2.1×10^{-6}	-2640	0.598	rs36014219	actinic_keratosi	5.8×10^{-7}	HLA-DQA1 HLA-DRB5--[]--	TRUE
6p21.32	32627714	rs1063355	4.3×10^{-13}	-40305	0.503	rs9271385	juvenile_asthma	3.2×10^{-11}	HLA-DQA1 HLA-DRB5--[]--	TRUE
6p21.32	32571897	rs12211942	2.9×10^{-6}	16657	0.618	rs9271465	iqb.bronchitis_frequency	1.6×10^{-15}	HLA-DQA1 HLA-DRB5--[]--	TRUE
6p21.32	32570184	rs2516051	7.7×10^{-5}	21153	0.522	rs9271601	any_skin_cancer	7.6×10^{-10}	HLA-DQA1 HLA-DRB5--[]--	FALSE
6p21.32	32604124	rs9272320	2.7×10^{-10}	-12741	0.529	rs9271602	milk_allergy	7.0×10^{-7}	HLA-DQA1 HLA-DRB5---[]-	TRUE
6p21.32	32602617	rs9272231	1.3×10^{-5}	-221	0.520	rs9272226	iqb.plantar_warts	1.8×10^{-40}	HLA-DQA1 HLA-DRB5---[]-	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	-22987	0.808	rs9272266	any_immune	1.2×10^{-20}	HLA-DQA1 HLA-DRB5---[]-	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	-22987	0.808	rs9272266	hayfever_all	4.4×10^{-19}	HLA-DQA1 HLA-DRB5---[]-	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	-22916	0.504	rs3104367	allergic_asthma	3.4×10^{-13}	HLA-DQA1 HLA-DRB5---[]-	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	-22916	0.504	rs3104367	any_asthma	1.0×10^{-40}	HLA-DQA1 HLA-DRB5---[]-	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	-22916	0.504	rs3104367	iqb.took_meds_asthma_or_lung	5.3×10^{-39}	HLA-DQA1 HLA-DQA1--	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	0	1.000	rs34004019	any_animal_allergy	2.6×10^{-48}	[]HLA-DQB1 HLA-DQA1--	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	0	1.000	rs34004019	any_food_allergy	1.6×10^{-9}	[]HLA-DQB1 HLA-DQA1--	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	0	1.000	rs34004019	any_plant_allergy	3.1×10^{-30}	[]HLA-DQB1 HLA-DQA1--	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	0	1.000	rs34004019	other_animal_allergy	1.1×10^{-18}	[]HLA-DQB1 HLA-DQA1--	TRUE
6p21.32	32626403	rs34004019	3.2×10^{-24}	0	1.000	rs34004019	seasonal_allergies_broad	4.1×10^{-30}	[]HLA-DQB1 HLA-DQA1--	TRUE
6p21.32	32667595	rs1794279	4.6×10^{-5}	-41111	0.672	rs9273369	iqb.celiac_w_biopsy	4.6×10^{-75}	[]HLA-DQB1 HLA-DQA1--	TRUE
6p21.32	32626537	rs28672722	1.4×10^{-18}	-45	0.527	rs9273370	hypothyroidism	4.5×10^{-34}	[]HLA-DQB1 HLA-DQA1--	TRUE
6p21.32	32636235	rs9274652	4.3×10^{-16}	-9336	0.510	rs4713571	dust_mites_allergy	7.3×10^{-19}	[]HLA-DQB1 HLA-DQA1--	TRUE
6p21.32	32636235	rs9274652	4.3×10^{-16}	-9336	0.510	rs4713571	mold_allergy	4.8×10^{-17}	[]HLA-DQB1	TRUE
6p21.32	32626696	rs34865969	2.6×10^{-6}	1242	0.569	rs36205178	scarlet_fever	9.5×10^{-14}	[HLA-DQB1]	FALSE
6p21.32	32627923	rs1063348	7.9×10^{-14}	44	0.822	rs1063346	juvenile_allergic_asthma	6.3×10^{-13}	[HLA-DQB1]	TRUE
6p21.32	32627934	rs2733463	1.9×10^{-13}	6168	0.522	rs200464814	any_drug_allergy	1.6×10^{-8}	[HLA-DQB1]	TRUE
6p21.32	32667473	rs1794514	1.0×10^{-5}	-15832	0.523	rs3134977	iqb.gluten_intolerance	1.9×10^{-40}	HLA-DQA2 HLA-DQB1--[]--	TRUE
6p21.32	32626492	rs9273370	2.2×10^{-8}	27234	0.504	rs9275170	acid_reflux_meds	6.8×10^{-10}	HLA-DQA2 HLA-DQB1--[]--	TRUE
6p21.32	32658429	rs9368737	4.6×10^{-7}	15325	0.524	rs28772279	lightheaded	3.7×10^{-7}	HLA-DQA2 HLA-DQB1--[]--	TRUE
6p21.32	32673077	rs9275485	3.8×10^{-6}	817	0.525	rs1794269	juvenile_t1d	1.2×10^{-59}	HLA-DQA2 HLA-DQB1--[]--	FALSE
6p21.32	32626249	rs6928482	2.3×10^{-7}	51663	0.622	rs9275563	iqb.oral_corticosteroid_ever	3.5×10^{-7}	HLA-DQB1--[]-- HLA-DQA2	TRUE
6p21.32	32626249	rs6928482	2.3×10^{-7}	51663	0.622	rs9275563	iqb.pneumonia_frequency	1.4×10^{-11}	HLA-DQA2	TRUE
6p21.32	32844103	rs115591082	7.6×10^{-6}	-41391	0.673	rs143970236	iqb.iodine_treatment_ever	5.4×10^{-8}	[TAP2]	TRUE
6p21.31	33540209	rs210134	2.5×10^{-5}	1298	0.706	rs511515	sunburns	2.0×10^{-25}	[BAK1]	TRUE
6p21.31	33647058	rs10947428	4.9×10^{-7}	0	1.000	rs10947428	mold_allergy	1.2×10^{-7}	[ITPR3]	TRUE
6q22.31	120040712	rs12211678	2.6×10^{-6}	3842	0.808	rs12204589	seasonal_allergies_broad	2.1×10^{-8}	MAN1A1---[]	TRUE
6q22.31	120235543	rs199534472	5.0×10^{-5}	2	1.000	rs9489833	penicillin_allergy	5.7×10^{-7}	MAN1A1---[]	TRUE
6q26	164141649	rs1475159	1.7×10^{-5}	23373	0.946	rs4709752	any_plant_allergy	7.6×10^{-7}	QKI---[]	TRUE
6q27	167422812	rs239931	7.9×10^{-5}	0	1.000	rs239931	any_animal_allergy	7.6×10^{-7}	[FGFR1OP] FGFR1OP-[]--	TRUE
6q27	167422812	rs239931	7.9×10^{-5}	32327	0.965	rs162297	juvenile_asthma	8.3×10^{-7}	CCR6	TRUE
7p21.1	20390109	rs17364847	2.2×10^{-6}	12149	0.593	rs17455862	height	2.5×10^{-13}	[ITGB8]	TRUE
7p21.1	20379191	rs79580155	4.0×10^{-5}	63195	0.809	rs739751	other_animal_allergy	4.5×10^{-7}	[ITGB8] ITGB8--[]---	TRUE
7p21.1	20502669	rs10270615	2.1×10^{-6}	4057	0.688	rs35120688	any_animal_allergy	2.8×10^{-8}	ABCB5	TRUE
7p15.1	28160029	rs66537264	7.0×10^{-5}	84	0.507	rs9648346	any_animal_allergy	1.6×10^{-8}	[JAZF1] C7orf72---[]--	TRUE
7p12.2	50309890	rs62447171	5.0×10^{-5}	-1198	0.703	rs876037	tonsillectomy	1.1×10^{-11}	IKZF1 C7orf72---[]--	TRUE
7p12.2	50325815	rs2085423	1.7×10^{-5}	3584	0.858	rs963594	mosquito_combined	7.4×10^{-11}	IKZF1	FALSE
7q11.23	76980832	rs17806725	3.2×10^{-5}	10317	0.929	rs1181900	any_plant_allergy	1.8×10^{-7}	[GSAP]	TRUE
7q11.23	77035392	rs6949654	7.0×10^{-5}	3553	0.509	rs2190097	any_animal_allergy	8.9×10^{-7}	[GSAP]	TRUE
8p12	35117349	rs10091394	3.4×10^{-5}	-80915	0.526	rs13253948	insomnia	5.3×10^{-7}	[]--UNC5D TPD52---[]---	TRUE
8q21.13	81292599	rs7824394	1.2×10^{-9}	-30055	0.672	rs62517192	any_immune	9.7×10^{-10}	ZBTB10 TPD52---[]---	TRUE
8q21.13	81286298	rs6986109	1.9×10^{-9}	-23505	0.574	rs67939787	any_plant_allergy	3.7×10^{-8}	ZBTB10 TPD52---[]---	TRUE
8q21.13	81292599	rs7824394	1.2×10^{-9}	-29703	0.771	rs7824993	eggs_allergy	8.7×10^{-7}	ZBTB10 TPD52---[]---	TRUE
8q21.13	81292599	rs7824394	1.2×10^{-9}	-27022	0.709	rs2370613	dust_mites_allergy	6.5×10^{-11}	ZBTB10 TPD52---[]---	TRUE
8q21.13	81292599	rs7824394	1.2×10^{-9}	-9424	0.750	rs7837219	hayfever_all	1.2×10^{-9}	ZBTB10 TPD52---[]---	TRUE
8q21.13	81292599	rs7824394	1.2×10^{-9}	-7460	0.934	rs10957978	any_asthma	1.1×10^{-11}	ZBTB10 TPD52---[]---	TRUE
8q21.13	81292599	rs7824394	1.2×10^{-9}	-6301	0.731	rs6986109	mold_allergy	1.2×10^{-9}	ZBTB10 TPD52---[]---	TRUE
8q21.13	81292599	rs7824394	1.2×10^{-9}	-6301	0.731	rs6986109	seasonal_allergies_broad	4.3×10^{-9}	ZBTB10 TPD52---[]---	TRUE
8q21.13	81292599	rs7824394	1.2×10^{-9}	0	1.000	rs7824394	any_animal_allergy	8.1×10^{-11}	ZBTB10	TRUE

8q21.13	81292599	rs7824394	1.2×10^{-9}	0	1.000	rs7824394	eczema	3.3×10^{-11}	TPD52---[]--- ZBTB10 TPD52---[]-- ZBTB10	TRUE
8q21.13	81292599	rs7824394	1.2×10^{-9}	11977	0.674	rs4739739	iqb.took_meds_asthma_or_lung	1.3×10^{-7}	[JAK2]	TRUE
9p24.1	4980929	rs141192940	5.3×10^{-5}	3601	0.672	rs1887428	crohns_or_ulcerative_colitis	8.7×10^{-9}	RCL1---[]JAK2	TRUE
9p24.1	4980929	rs141192940	5.3×10^{-5}	17472	0.588	rs7868130	blood_disorder	5.8×10^{-14}	[JAK2]	TRUE
9p24.1	4980929	rs141192940	5.3×10^{-5}	17472	0.588	rs7868130	mpn_narrow	5.7×10^{-59}	[JAK2]	TRUE
9p24.1	4980929	rs141192940	5.3×10^{-5}	17472	0.588	rs7868130	mpn_or_v617f	4.7×10^{-92}	[JAK2]	TRUE
9p24.1	4980929	rs141192940	5.3×10^{-5}	29162	0.582	rs10974910	jak2_v617f_cc	2.0×10^{-36}	[JAK2]	TRUE
9p24.1	5130965	rs10974978	2.1×10^{-5}	-51137	0.791	rs10974952	iqb.took_meds_asthma_or_lung	3.4×10^{-7}	[JAK2]	TRUE
9p24.1	5130965	rs10974978	2.1×10^{-5}	-16442	0.847	rs3780381	seasonal_allergies_broad	4.1×10^{-7}	[JAK2]	TRUE
9p24.1	5130965	rs10974978	2.1×10^{-5}	53257	0.759	rs12349508	heartburn	5.4×10^{-7}	[INSL6]	TRUE
9p24.1	6021398	rs148813004	8.6×10^{-6}	0	1.000	rs148813004	any_food_allergy	5.4×10^{-7}	RANBP6---[]--IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-31159	0.949	rs72699188	juvenile_asthma	1.1×10^{-7}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-30577	0.969	rs9775039	any_animal_allergy	8.1×10^{-15}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-30577	0.969	rs9775039	any_plant_allergy	1.0×10^{-13}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-30577	0.969	rs9775039	dust_mites_allergy	1.3×10^{-8}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-30577	0.969	rs9775039	iqb.took_meds_asthma_or_lung	2.3×10^{-20}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-30577	0.969	rs9775039	mold_allergy	1.0×10^{-12}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-30577	0.969	rs9775039	seasonal_allergies_broad	5.2×10^{-14}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-26505	0.614	rs4529511	iqb.chronic_sinus_infections	1.6×10^{-7}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-17954	0.959	rs1342326	allergic_asthma	5.3×10^{-15}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	-17954	0.959	rs1342326	juvenile_allergic_asthma	1.2×10^{-13}	RANBP6---[]-- IL33 RANBP6---[]-- IL33	TRUE
9p24.1	6208030	rs144829310	3.3×10^{-10}	0	1.000	rs144829310	any_asthma	1.3×10^{-31}	RANBP6---[]--IL33 RANBP6---[]--IL33	TRUE
9p24.1	6213829	rs10975488	7.7×10^{-11}	0	1.000	rs10975488	hayfever_all	1.6×10^{-14}	IL33--[]-- TPD52L3 IL33--[]-- TPD52L3	TRUE
9p24.1	6187132	rs76962799	4.9×10^{-8}	95379	0.653	rs78757963	any_drug_allergy	1.1×10^{-7}	TPD52L3 IL33--[]-- TPD52L3	TRUE
9p24.1	6297108	rs143305466	1.0×10^{-6}	-4506	0.748	rs744567	iqb.travel_preferences	8.8×10^{-7}	[COL15A1]	TRUE
9q22.33	101799399	rs3780620	1.5×10^{-5}	20445	0.584	rs7038068	iqb.took_meds_asthma_or_lung	1.8×10^{-8}	TRAF1--[]--C5	FALSE
9q33.2	123650534	rs10760123	2.2×10^{-5}	42406	0.532	rs10760127	back_hair	5.0×10^{-8}	[ABO]	TRUE
9q34.2	136139907	rs8176680	3.0×10^{-7}	-6999	0.558	rs8176719	iqb.lipoma	2.1×10^{-8}	[ABO]	TRUE
9q34.2	136138765	9:136138765:GCGCC	2.3×10^{-6}	0	1.000	9:136138765:GCGCC	gallstones_or_gall_bladder_removal	5.9×10^{-8}	[ABO]	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	-1963	0.568	rs8176680	healthy_old	9.6×10^{-7}	[ABO]	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	-1963	0.568	rs8176680	iqb.low_hdl	6.3×10^{-7}	[ABO]	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	0	1.000	rs2519093	any_animal_allergy	1.5×10^{-11}	[ABO]	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	0	1.000	rs2519093	dust_mites_allergy	2.9×10^{-9}	[ABO]	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	0	1.000	rs2519093	mold_allergy	1.7×10^{-8}	[ABO]	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	0	1.000	rs2519093	high_cholesterol_broad	1.9×10^{-36}	[ABO]	TRUE
9q34.2	136137106	rs687289	2.0×10^{-6}	7202	0.753	rs576123	any_plant_allergy	8.2×10^{-11}	[ABO]	TRUE
9q34.2	136137106	rs687289	2.0×10^{-6}	7202	0.753	rs576123	seasonal_allergies_broad	7.0×10^{-11}	[ABO]	TRUE
9q34.2	136139907	rs8176680	3.0×10^{-7}	6170	0.607	rs676996	iqb.need_braces	1.9×10^{-7}	[ABO]	TRUE
9q34.2	136146448	9:136146448:TAAGA	2.6×10^{-5}	0	1.000	9:136146448:TAAGA	hemorrhoids	4.2×10^{-7}	[ABO]	FALSE
9q34.2	136141870	rs2519093	3.6×10^{-8}	4727	0.575	rs550057	iqb.blood_donation_frequency	4.0×10^{-12}	[ABO]	FALSE
9q34.2	136149095	9:136149095:CA_C	7.1×10^{-6}	0	1.000	9:136149095:CA_C	iqb.childhood_ear_infections	3.7×10^{-11}	[ABO]	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	7529	0.991	rs507666	iqb.took_meds_blood_thinners	5.9×10^{-25}	[ABO]	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	7529	0.991	rs507666	iqb.varicose_veins_legs	9.4×10^{-25}	[ABO]	TRUE
9q34.2	136139907	rs8176680	3.0×10^{-7}	9593	0.656	rs529565	blood_clots	7.1×10^{-63}	[ABO]	TRUE
9q34.2	136149709	9:136149709:AC_A	6.6×10^{-7}	0	1.000	9:136149709:AC_A	heart_metabolic_disease	1.2×10^{-8}	[ABO]	TRUE
9q34.2	136149709	9:136149709:AC_A	6.6×10^{-7}	0	1.000	9:136149709:AC_A	heart_metabolic_disease_burden	2.8×10^{-7}	[ABO]	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	13130	0.983	rs635634	iqb.warfarin_ever	5.4×10^{-19}	ABO--[]--SURF6	TRUE
9q34.2	136141870	rs2519093	3.6×10^{-8}	13130	0.983	rs635634	tonsillectomy	8.5×10^{-9}	ABO--[]--SURF6	TRUE
10p15.1	6066195	rs12358961	3.0×10^{-5}	1493	0.983	rs2025345	seasonal_allergies_broad	9.3×10^{-7}	[IL2RA]	TRUE
10p15.1	6074451	rs4747846	7.4×10^{-6}	0	1.000	rs4747846	dust_mites_allergy	7.5×10^{-7}	[IL2RA]	TRUE
10p14	9027062	rs61228150	1.1×10^{-5}	0	1.000	rs61228150	dust_mites_allergy	3.0×10^{-10}	GATA3---[]	TRUE
10p14	9043404	rs61840192	6.9×10^{-11}	0	1.000	rs61840192	iqb.took_meds_asthma_or_lung	1.2×10^{-9}	GATA3---[]	TRUE
10p14	9043404	rs61840192	6.9×10^{-11}	0	1.000	rs61840192	seasonal_allergies_broad	7.1×10^{-13}	GATA3---[]	TRUE
10p14	9043404	rs61840192	6.9×10^{-11}	0	1.000	rs61840192	scarlet_fever	5.8×10^{-7}	GATA3---[]	TRUE
10p14	9049253	rs12413578	1.1×10^{-6}	0	1.000	rs12413578	any_asthma	8.1×10^{-12}	GATA3---[]	TRUE
10p14	9043404	rs61840192	6.9×10^{-11}	9728	0.898	rs962993	any_plant_allergy	6.8×10^{-13}	GATA3---[]	TRUE
10p14	9052742	rs1775550	5.6×10^{-11}	9056	0.983	rs6602349	any_animal_allergy	8.4×10^{-16}	GATA3---[]	TRUE
10p14	9043404	rs61840192	6.9×10^{-11}	19452	0.882	rs2197415	any_food_allergy	6.5×10^{-8}	GATA3---[]	TRUE
10p14	9052742	rs1775550	5.6×10^{-11}	32561	0.518	rs2797272	iqb.snore	2.1×10^{-8}	GATA3---[]	TRUE
10q24.32	104319131	rs201041406	2.6×10^{-10}	-90832	0.518	rs11593589	mold_allergy	4.7×10^{-10}	[TMEM180]	TRUE
10q24.32	104319131	rs201041406	2.6×10^{-10}	-90832	0.518	rs11593589	seasonal_allergies_broad	5.8×10^{-13}	[TMEM180] TMEM180[]-- ACTR1A	TRUE
10q24.32	104319131	rs201041406	2.6×10^{-10}	-82124	0.564	rs12569526	height	2.7×10^{-24}	[ACTR1A]	TRUE
10q24.32	104228299	rs11593589	3.6×10^{-10}	29796	0.619	rs715440	any_animal_allergy	7.6×10^{-10}	[ACTR1A]	TRUE
10q24.32	104228299	rs11593589	3.6×10^{-10}	29796	0.619	rs715440	any_food_allergy	3.0×10^{-8}	[ACTR1A]	TRUE
10q24.32	104278261	rs201333164	1.1×10^{-10}	0	1.000	rs201333164	insect_allergy	3.4×10^{-8}	[SUFU]	TRUE
10q24.32	104319131	rs201041406	2.6×10^{-10}	21573	0.595	rs9783158	any_plant_allergy	8.9×10^{-14}	[SUFU]	TRUE
10q24.32	104319131	rs201041406	2.6×10^{-10}	21573	0.595	rs9783158	dust_mites_allergy	6.3×10^{-9}	[SUFU]	TRUE
10q24.32	104319131	rs201041406	2.6×10^{-10}	55521	0.631	rs200553041	other_animal_allergy	4.1×10^{-7}	[SUFU]	TRUE
10q24.32	104707211	rs34957371	5.8×10^{-7}	-48193	0.544	rs7909591	ever_tobacco_user	2.3×10^{-8}	[AS3MT] PPP1R32--[]-- LRRC10B	FALSE
11q12.2	61263710	rs12806665	9.7×10^{-5}	-2485	0.921	rs11230714	blood_pressure_meds	1.2×10^{-7}	PPP1R32--[]-- LRRC10B	FALSE
11q12.2	61263710	rs12806665	9.7×10^{-5}	11468	0.921	rs11230727	high_blood_pressure	7.2×10^{-8}	LRRC10B	FALSE
11q13.5	76299431	rs55646091	2.1×10^{-9}	-50801	0.906	rs61894547	mosquito_combined	5.5×10^{-7}	[C11orf30] C11orf30--[]-- LRRC32	FALSE
11q13.5	76299844	rs34455012	1.2×10^{-13}	-23389	0.516	rs10899231	other_animal_allergy	4.3×10^{-8}	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10^{-14}	-688	0.845	rs7114362	other_food_allergy	9.9×10^{-7}	C11orf30--[]--	TRUE

11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	-32	0.974	rs7936312	allergic_asthma	3.2×10 ⁻⁷	LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	-32	0.974	rs7936312	any_immune	7.1×10 ⁻¹³	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	any_animal_allergy	1.7×10 ⁻¹⁸	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	any_asthma	1.4×10 ⁻¹⁶	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	any_plant_allergy	4.8×10 ⁻¹⁵	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	dust_mites_allergy	1.9×10 ⁻¹⁸	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	eczema	5.8×10 ⁻¹⁶	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	hayfever_all	5.6×10 ⁻¹¹	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	insect_allergy	2.2×10 ⁻⁷	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	iqb.took_meds_asthma_or_lung	4.0×10 ⁻²⁰	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	juvenile_allergic_asthma	2.3×10 ⁻⁹	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	juvenile_asthma	6.9×10 ⁻⁹	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	mold_allergy	6.0×10 ⁻¹³	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	0	1.000	rs7936323	seasonal_allergies_broad	3.0×10 ⁻¹⁶	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	5436	0.898	rs2155219	any_food_allergy	9.2×10 ⁻¹²	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	5436	0.898	rs2155219	tree_nuts_allergy	1.0×10 ⁻⁸	C11orf30--[]-- LRRC32	TRUE
11q13.5	76293758	rs7936323	1.1×10 ⁻¹⁴	8315	0.879	rs7930763	food_allergy	3.9×10 ⁻⁹	C11orf30--[]-- LRRC32	TRUE
11q23.1	111455916	rs200687381	9.6×10 ⁻⁷	-33699	0.631	rs663763	high_blood_pressure	2.3×10 ⁻⁷	[LAYN]	
11q23.1	111455916	rs200687381	9.6×10 ⁻⁷	0	1.000	rs200687381	any_plant_allergy	3.4×10 ⁻¹⁰	LAYN--[]--SIK2	TRUE
11q23.1	111455916	rs200687381	9.6×10 ⁻⁷	0	1.000	rs200687381	dust_mites_allergy	1.3×10 ⁻⁷	LAYN--[]--SIK2	TRUE
11q23.1	111455916	rs200687381	9.6×10 ⁻⁷	4762	0.732	rs567040	seasonal_allergies_broad	8.4×10 ⁻⁹	LAYN--[]--SIK2	
11q23.1	111455916	rs200687381	9.6×10 ⁻⁷	25399	0.785	rs10532521	iqb.gap_between_teeth	3.9×10 ⁻⁹	[SIK2]	
11q23.1	111455916	rs200687381	9.6×10 ⁻⁷	35406	0.812	rs11828343	any_animal_allergy	7.1×10 ⁻¹⁰	[SIK2]	
11q23.3	116872034	rs10892057	3.4×10 ⁻⁶	0	1.000	rs10892057	any_plant_allergy	3.1×10 ⁻⁷	[SIK3]	TRUE
11q23.3	116872034	rs10892057	3.4×10 ⁻⁶	0	1.000	rs10892057	seasonal_allergies_broad	5.8×10 ⁻⁷	[SIK3]	TRUE
11q23.3	117083373	rs111765459	7.3×10 ⁻⁶	13279	0.922	rs2277287	any_animal_allergy	4.0×10 ⁻⁷	[PCSK7]	TRUE
11q23.3	118575261	rs1118575261:A_ATT	9.9×10 ⁻¹¹	0	1.000	rs1118575261:A_ATT	any_plant_allergy	9.9×10 ⁻¹¹	TREH--[]--DDX6	TRUE
11q23.3	118590078	rs470203	1.7×10 ⁻¹⁰	0	1.000	rs470203	any_animal_allergy	3.8×10 ⁻⁹	TREH--[]--DDX6	TRUE
11q23.3	118590078	rs470203	1.7×10 ⁻¹⁰	0	1.000	rs470203	dust_mites_allergy	9.7×10 ⁻¹¹	TREH--[]--DDX6	TRUE
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	-68461	0.843	rs56267528	iqb.took_meds_asthma_or_lung	7.6×10 ⁻⁸	TREH--[]--DDX6	TRUE
11q23.3	118721699	rs7125066	1.1×10 ⁻⁸	0	1.000	rs7125066	mold_allergy	5.2×10 ⁻⁸	DDX6--[]--CXCR5	TRUE
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	62509	0.523	rs7119038	any_asthma	9.3×10 ⁻⁸	DDX6--[]--CXCR5	TRUE
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	62509	0.523	rs7119038	any_immune	7.7×10 ⁻⁷	DDX6--[]--CXCR5	TRUE
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	66952	0.569	rs7125333	seasonal_allergies_broad	4.3×10 ⁻¹¹	DDX6--[]--CXCR5	TRUE
11q23.3	118675772	rs11217036	9.3×10 ⁻¹¹	68624	0.678	rs7117313	hayfever_all	1.6×10 ⁻⁷	DDX6--[]--CXCR5 SPATA19--[]--	TRUE
11q25	133754975	rs329664	2.5×10 ⁻⁷	0	1.000	rs329664	any_neurological	9.0×10 ⁻⁹	IGSF9B	TRUE
12q13.12	50345671	rs11169225	5.4×10 ⁻⁸	-2505	0.827	rs3759124	iqb.sweat_during_workout	2.9×10 ⁻⁹	FAM2--[]--AQP2	FALSE
12q13.12	50345671	rs11169225	5.4×10 ⁻⁸	0	1.000	rs11169225	any_animal_allergy	7.1×10 ⁻⁹	[AQP2]	TRUE
12q13.12	50345671	rs11169225	5.4×10 ⁻⁸	0	1.000	rs11169225	seasonal_allergies_broad	4.6×10 ⁻⁸	[AQP2]	TRUE
12q13.12	50563890	rs56709084	7.8×10 ⁻⁵	31555	0.540	rs10219559	any_cvd	1.3×10 ⁻⁷	[LIMA1]	TRUE
12q13.2	56427808	rs1702877	8.0×10 ⁻⁵	-24231	0.965	rs772921	any_autoimmune	7.7×10 ⁻⁷	SUOX--[]--IKZF4	TRUE
12q13.2	56427808	rs1702877	8.0×10 ⁻⁵	0	1.000	rs1702877	any_immune	2.7×10 ⁻⁷	[IKZF4]	TRUE
12q13.2	56427808	rs1702877	8.0×10 ⁻⁵	27486	0.947	rs2640564	vitiligo	3.8×10 ⁻¹⁰	RPS26--[]--ERBB3	TRUE
12q13.2	56427808	rs1702877	8.0×10 ⁻⁵	39779	0.554	rs7312770	hypothyroidism	8.0×10 ⁻⁸	RPS26--[]--ERBB3	TRUE
12q13.2	56427808	rs1702877	8.0×10 ⁻⁵	39779	0.554	rs7312770	pcos	8.9×10 ⁻⁷	RPS26--[]--ERBB3	TRUE
12q13.3	57493727	rs3024971	5.2×10 ⁻⁷	0	1.000	rs3024971	any_animal_allergy	4.5×10 ⁻¹¹	[STAT6]	TRUE
12q13.3	57493727	rs3024971	5.2×10 ⁻⁷	0	1.000	rs3024971	mosquito_combined	9.4×10 ⁻¹⁶	[STAT6]	FALSE
12q13.3	57493727	rs3024971	5.2×10 ⁻⁷	0	1.000	rs3024971	mosquito_severe	5.3×10 ⁻¹⁰	[STAT6]	TRUE
12q13.3	57510309	rs324014	4.3×10 ⁻⁵	-6534	0.682	rs167769	juvenile_allergic_asthma	5.7×10 ⁻⁷	[STAT6]	TRUE
12q13.3	57510309	rs324014	4.3×10 ⁻⁵	-1254	0.984	rs3001426	any_asthma	1.4×10 ⁻¹⁰	STAT6--[]--LRP1	TRUE
12q13.3	57510309	rs324014	4.3×10 ⁻⁵	16974	0.599	rs11172113	iqb.red_wine_headache	1.5×10 ⁻¹²	[LRP1]	FALSE
12q13.3	57510309	rs324014	4.3×10 ⁻⁵	16974	0.599	rs11172113	migraine_diagnosis	5.6×10 ⁻³⁶	[LRP1]	FALSE
12q21.33	90301665	rs4240744	7.5×10 ⁻⁷	0	1.000	rs4240744	seasonal_allergies_broad	4.5×10 ⁻⁷	ATP2B1---[]	TRUE
12q21.33	90301665	rs4240744	7.5×10 ⁻⁷	2010	0.989	rs7972542	any_plant_allergy	2.5×10 ⁻⁷	ATP2B1---[]	TRUE
12q21.33	90303567	rs7957657	2.4×10 ⁻⁶	41128	0.694	rs7294671	other_plant_allergy	1.6×10 ⁻⁷	ATP2B1---[]	TRUE
12q21.33	92573643	rs790468	8.8×10 ⁻⁵	-69259	0.884	rs1658685	eyecolor_herc2_blue	3.3×10 ⁻¹⁰	[LOC256021] BTG1--[]--	TRUE
12q21.33	92573643	rs790468	8.8×10 ⁻⁵	-5810	0.979	rs790464	eyecolor_simple	3.2×10 ⁻⁷	CLU10S RIC8B--[]--	TRUE
12q23.3	107350088	rs2041895	8.6×10 ⁻⁶	-27173	0.532	rs10861679	height	1.5×10 ⁻¹¹	C12orf23 FAM109A--[]-- SH2B3	TRUE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-76431	0.835	rs10774624	iqb.took_meds_blood_thinners	2.6×10 ⁻⁷	FAM109A--[]-- SH2B3	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-76431	0.835	rs10774624	any_cvd	9.0×10 ⁻¹¹	SH2B3	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-45170	0.886	rs7310615	high_blood_pressure	1.8×10 ⁻¹³	[SH2B3]	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-25611	0.934	rs3184504	iqb.ever_diagnosed_autoimmune	1.3×10 ⁻¹⁵	[SH2B3]	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-25611	0.934	rs3184504	jak2_v617f_cc	3.6×10 ⁻⁸	[SH2B3]	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-25611	0.934	rs3184504	mpn_narrow	3.3×10 ⁻⁷	[SH2B3]	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-25611	0.934	rs3184504	mpn_or_v617f	1.0×10 ⁻¹³	[SH2B3]	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-25611	0.934	rs3184504	tonsillectomy	3.1×10 ⁻¹⁰	[SH2B3]	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-25611	0.934	rs3184504	bmi	6.1×10 ⁻⁹	[SH2B3]	TRUE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	-2788	1.000	rs35350651	any_animal_allergy	2.2×10 ⁻¹²	[ATXN2]	TRUE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	0	1.000	rs10774625	blood_pressure_meds	1.0×10 ⁻¹⁷	[ATXN2]	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	0	1.000	rs10774625	hypothyroidism	1.4×10 ⁻²⁶	[ATXN2]	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	63139	0.871	rs597808	rosacea_all	6.3×10 ⁻⁸	[ATXN2]	FALSE
12q24.12	111910219	rs10774625	4.1×10 ⁻⁵	97537	0.933	rs653178	any_autoimmune	1.3×10 ⁻²⁰	[ATXN2]	FALSE
12q24.31	121072799	rs2859263	6.2×10 ⁻⁵	-10200	0.598	rs71076641	iqb.curlier_in_humidity	1.5×10 ⁻⁷	POP5--[]--CABP1	

12q24.31	121363836	rs2649994	7.2×10^{-5}	46842	0.639	rs66627474	any_plant_allergy	5.9×10^{-7}	SPPL3--[]-HNF1A	TRUE
12q24.31	123771032	rs9739070	1.3×10^{-11}	-28340	0.661	rs63406760	any_animal_allergy	2.3×10^{-9}	C12orf65[]-CDK2AP1	
12q24.31	123771032	rs9739070	1.3×10^{-11}	-28340	0.661	rs63406760	any_plant_allergy	2.4×10^{-12}	C12orf65[]-CDK2AP1	
12q24.31	123771032	rs9739070	1.3×10^{-11}	-28340	0.661	rs63406760	seasonal_allergies_broad	5.3×10^{-12}	C12orf65[]-CDK2AP1	
12q24.31	123817796	rs12316131	8.1×10^{-11}	75138	0.844	rs6576	any_food_allergy	6.3×10^{-7}	[SETD8]	TRUE
12q24.31	123817796	rs12316131	8.1×10^{-11}	75138	0.844	rs6576	dust_mites_allergy	4.6×10^{-10}	[SETD8]	TRUE
12q24.31	123817796	rs12316131	8.1×10^{-11}	75138	0.844	rs6576	mold_allergy	8.2×10^{-9}	[SETD8]	TRUE
12q24.31	123817796	rs12316131	8.1×10^{-11}	75138	0.844	rs6576	height	1.4×10^{-17}	[SETD8]	FALSE
13q14.11	41582138	rs61962744	4.6×10^{-5}	-98281	0.559	rs200638693	rosacea_dx	3.5×10^{-8}	SLC25A15--[]-ELF1	
13q14.11	42988546	rs7328203	1.6×10^{-7}	-29413	0.688	rs58973023	iqb.dot_bone_loss	1.9×10^{-9}	AKAP11--[]-TNFSF11	FALSE
13q14.11	42988546	rs7328203	1.6×10^{-7}	-22852	0.688	rs8001611	osteoporosis	2.9×10^{-8}	AKAP11--[]-TNFSF11	FALSE
13q14.11	42988546	rs7328203	1.6×10^{-7}	-22852	0.688	rs8001611	osteoporosis_broad	8.9×10^{-12}	AKAP11--[]-TNFSF11	FALSE
13q14.11	42988546	rs7328203	1.6×10^{-7}	0	1.000	rs7328203	any_animal_allergy	1.0×10^{-9}	AKAP11--[]-TNFSF11	TRUE
13q14.11	42988546	rs7328203	1.6×10^{-7}	0	1.000	rs7328203	dust_mites_allergy	2.1×10^{-8}	AKAP11--[]-TNFSF11	TRUE
13q14.11	42988546	rs7328203	1.6×10^{-7}	0	1.000	rs7328203	seasonal_allergies_broad	2.4×10^{-9}	AKAP11--[]-TNFSF11	TRUE
13q14.11	42988546	rs7328203	1.6×10^{-7}	378	0.937	rs7327510	any_plant_allergy	7.2×10^{-10}	AKAP11--[]-TNFSF11	TRUE
13q14.11	42988546	rs7328203	1.6×10^{-7}	8002	0.906	rs9533100	tonsillectomy	1.2×10^{-7}	AKAP11--[]-TNFSF11	TRUE
13q14.3	54002500	rs967302	7.0×10^{-5}	-17786	0.753	rs9527077	other_allergy_general	3.0×10^{-7}	OLFM4--[]	TRUE
13q14.3	54002500	rs967302	7.0×10^{-5}	46989	0.739	rs17574479	any_immune	3.5×10^{-7}	OLFM4--[]	TRUE
13q21.32	67798928	rs700329	2.9×10^{-6}	-11661	0.700	rs71427643	any_plant_allergy	3.3×10^{-7}	[PCDH9]	TRUE
13q21.32	67798928	rs700329	2.9×10^{-6}	-10149	1.000	rs9317655	seasonal_allergies_broad	3.9×10^{-7}	[PCDH9]	TRUE
13q22.1	73649152	rs45597035	6.2×10^{-5}	0	1.000	rs45597035	dust_mites_allergy	9.2×10^{-7}	[KLF5]	TRUE
13q32.3	100087719	rs9300546	4.6×10^{-5}	-14054	0.854	rs6491500	dust_mites_allergy	1.3×10^{-7}	UBAC2--[]-TM9SF2	TRUE
14q21.1	38058622	rs3832946	1.1×10^{-5}	-33524	0.663	rs148131694	tonsillectomy	7.8×10^{-13}	MIPOL1--[]-FOXA1	
14q21.1	38151255	rs61977073	3.5×10^{-10}	-58841	0.654	rs464306	any_animal_allergy	1.3×10^{-11}	FOXA1--[]-TTC6	TRUE
14q21.1	38151255	rs61977073	3.5×10^{-10}	-23380	0.846	rs96718663	any_plant_allergy	1.3×10^{-9}	FOXA1--[]-TTC6	TRUE
14q21.1	38151255	rs61977073	3.5×10^{-10}	0	1.000	rs61977073	seasonal_allergies_broad	4.7×10^{-11}	FOXA1--[]-TTC6	TRUE
14q21.1	38151255	rs61977073	3.5×10^{-10}	29558	0.819	rs1022804	dust_mites_allergy	2.1×10^{-7}	FOXA1--[]-TTC6	TRUE
14q32.2	99169703	rs4905754	1.3×10^{-5}	898	0.972	rs11851619	any_plant_allergy	8.4×10^{-7}	[]-C14orf177	TRUE
14q32.2	99169703	rs4905754	1.3×10^{-5}	6229	0.723	rs61981314	dust_mites_allergy	8.3×10^{-7}	[]-C14orf177	TRUE
15q15.1	41434729	rs11855854	3.4×10^{-5}	16079	0.639	rs13329237	height	7.5×10^{-11}	IN080--[]-EXD1	FALSE
15q15.1	41563950	rs28374715	1.2×10^{-5}	-23763	0.533	rs369676616	poison_oak	5.1×10^{-7}	[CHP1]	
15q15.1	41760790	rs111421683	3.2×10^{-7}	0	1.000	rs111421683	any_animal_allergy	2.0×10^{-7}	[RTF1]	TRUE
15q15.1	41760790	rs111421683	3.2×10^{-7}	21931	0.640	rs12440111	dust_mites_allergy	4.3×10^{-7}	RTF1-[]-ITPKA	TRUE
15q15.1	41760790	rs111421683	3.2×10^{-7}	21938	0.592	rs12440067	insect_allergy	8.4×10^{-9}	RTF1-[]-ITPKA	TRUE
15q22.2	61070949	rs36042015	3.5×10^{-7}	-2245	0.583	rs10519068	any_asthma	3.8×10^{-11}	RORA--[]	
15q22.2	61070949	rs36042015	3.5×10^{-7}	-536	0.532	rs200066091	iqb.took_meds_asthma_or_lung	1.6×10^{-10}	RORA--[]	
15q22.2	61070949	rs36042015	3.5×10^{-7}	0	1.000	rs36042015	any_animal_allergy	2.4×10^{-11}	RORA--[]	TRUE
15q22.2	61070949	rs36042015	3.5×10^{-7}	0	1.000	rs36042015	dust_mites_allergy	2.2×10^{-7}	RORA--[]	TRUE
15q22.33	67371420	rs12592283	3.3×10^{-7}	0	1.000	rs12592283	seasonal_allergies_broad	1.8×10^{-8}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	-26535	0.695	rs72743461	juvenile_asthma	8.9×10^{-7}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	-25689	0.709	rs17293632	allergic_asthma	6.2×10^{-9}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	-25689	0.709	rs17293632	hayfever_all	5.6×10^{-13}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	-25689	0.709	rs17293632	iqb.took_meds_asthma_or_lung	4.8×10^{-21}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	-25689	0.709	rs17293632	juvenile_allergic_asthma	7.3×10^{-12}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	-19922	0.695	rs56375023	any_asthma	2.4×10^{-21}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	-17980	0.702	rs17228058	thyroid_cancer	5.0×10^{-10}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	-3994	0.786	rs72743477	any_food_allergy	2.2×10^{-8}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	0	1.000	rs17294280	any_animal_allergy	5.2×10^{-13}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	0	1.000	rs17294280	any_plant_allergy	1.6×10^{-9}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	0	1.000	rs17294280	dust_mites_allergy	2.2×10^{-9}	[SMAD3]	TRUE
15q22.33	67468285	rs17294280	3.6×10^{-8}	0	1.000	rs17294280	mold_allergy	2.2×10^{-8}	[SMAD3]	TRUE
16p13.13	11206463	rs2110605	7.3×10^{-14}	-86858	0.549	rs71404439	iqb.shampoo_type	5.9×10^{-10}	[CLEC16A]	
16p13.13	11206463	rs2110605	7.3×10^{-14}	-76084	0.614	rs7197754	mold_allergy	1.4×10^{-10}	[CLEC16A]	TRUE
16p13.13	11192959	rs111306289	2.8×10^{-13}	-34074	0.609	rs887864	severe_acne	5.7×10^{-11}	[CLEC16A]	
16p13.13	11192959	rs111306289	2.8×10^{-13}	-23276	0.675	rs725613	iqb.acne_as_teenager	3.5×10^{-15}	[CLEC16A]	
16p13.13	11206463	rs2110605	7.3×10^{-14}	-10422	0.584	rs9941107	sulfa_drug_allergy	3.3×10^{-8}	[CLEC16A]	TRUE
16p13.13	11206463	rs2110605	7.3×10^{-14}	-6785	0.594	rs998592	any_drug_allergy	1.7×10^{-11}	[CLEC16A]	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	-48230	0.509	rs62026377	other_animal_allergy	7.0×10^{-7}	[CLEC16A]	TRUE
16p13.13	11244658	rs7206912	4.6×10^{-6}	-15069	0.504	rs2041733	eczema	9.2×10^{-12}	[CLEC16A]	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	-46655	0.504	rs7203459	any_asthma	3.5×10^{-15}	[CLEC16A]	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	-46655	0.504	rs7203459	iqb.took_meds_asthma_or_lung	4.6×10^{-14}	[CLEC16A]	TRUE
16p13.13	11192959	rs111306289	2.8×10^{-13}	38898	0.553	rs2867880	allergic_asthma	2.6×10^{-8}	[CLEC16A]	
16p13.13	11277358	rs11644510	1.5×10^{-16}	0	1.000	rs11644510	any_animal_allergy	2.7×10^{-17}	CLEC16A--[]-SOCS1	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	0	1.000	rs11644510	any_food_allergy	2.5×10^{-10}	CLEC16A--[]-SOCS1	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	0	1.000	rs11644510	any_immune	4.7×10^{-7}	CLEC16A--[]-SOCS1	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	0	1.000	rs11644510	any_plant_allergy	3.6×10^{-13}	CLEC16A--[]-SOCS1	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	0	1.000	rs11644510	dust_mites_allergy	2.3×10^{-12}	CLEC16A--[]-SOCS1	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	0	1.000	rs11644510	hayfever_all	1.8×10^{-13}	CLEC16A--[]-SOCS1	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	0	1.000	rs11644510	seasonal_allergies_broad	1.1×10^{-16}	CLEC16A--[]-SOCS1	TRUE
16p13.13	11277358	rs11644510	1.5×10^{-16}	2273	0.593	rs28534539	juvenile_allergic_asthma	1.6×10^{-7}	CLEC16A--[]-SOCS1	TRUE
16p13.13	11295972	rs37940	9.0×10^{-6}	0	1.000	rs37940	other_plant_allergy	4.0×10^{-7}	CLEC16A--[]-SOCS1	TRUE

16p12.1	27403469	rs1119132	1.0×10^{-5}	10909	0.848	rs6498021	any_animal_allergy	8.4×10^{-10}	IL4R--[]--IL21R	TRUE
16p11.2	28347140	rs2726036	1.8×10^{-6}	-9101	0.742	rs2726033	obesity	3.0×10^{-7}	SBK1-[]--NPIPL1	FALSE
16p11.2	28565953	rs7187604	4.5×10^{-7}	-92488	0.559	rs137892064	any_food_allergy	2.3×10^{-7}	[NPIPL1]	TRUE
16p11.2	28580829	rs56396270	3.8×10^{-7}	-95688	0.820	rs1492999	heart_metabolic_disease	2.1×10^{-7}	[NPIPL1]	FALSE
16p11.2	28620572	rs750155	9.2×10^{-8}	-81186	0.543	rs189278832	iqb.stretch_marks	7.3×10^{-11}	[NPIPL1]	FALSE
16p11.2	28620572	rs750155	9.2×10^{-8}	-81186	0.543	rs189278832	stretch_marks_any	7.8×10^{-11}	[NPIPL1]	FALSE
16p11.2	28620572	rs750155	9.2×10^{-8}	-74985	0.510	rs231976	mosquito_severe	1.7×10^{-7}	[NPIPL1]	TRUE
16p11.2	28620572	rs750155	9.2×10^{-8}	-13040	0.512	rs4115668	any_plant_allergy	3.8×10^{-8}	[NPIPL1,SULT1A2]	TRUE
16p11.2	28608341	rs762633	3.2×10^{-7}	9547	0.675	rs74459546	stretch_marks_qtl	1.0×10^{-8}	[NPIPL1,SULT1A1]	FALSE
16p11.2	28620572	rs750155	9.2×10^{-8}	0	1.000	rs750155	seasonal_allergies_broad	6.1×10^{-8}	[NPIPL1,SULT1A1]	TRUE
16p11.2	28913787	rs7189927	2.4×10^{-7}	-47871	0.846	rs7187333	bmi	2.6×10^{-17}	[NPIPL1]	FALSE
16p11.2	28913787	rs7189927	2.4×10^{-7}	-42587	0.830	rs199766562	weight	9.6×10^{-21}	[NPIPL1]	FALSE
16p11.2	28913787	rs7189927	2.4×10^{-7}	-14994	0.928	rs6565259	iqb.ingrown_hair_bumps	1.4×10^{-7}	[NPIPL1,ATP2A1]	FALSE
16p11.2	28913787	rs7189927	2.4×10^{-7}	5554	0.988	rs7206214	shoe_size_normalized	5.5×10^{-11}	[NPIPL1,RABEP2]	FALSE
16q23.1	77506441	rs2199534	7.0×10^{-5}	-3837	0.585	rs2220809	iqb.acne_as_teenager	1.8×10^{-8}	ADAMTS18--[]---	TRUE
17p13.3	2481492	rs140600009	2.6×10^{-5}	50780	0.611	rs1266472	seasonal_allergies_broad	1.0×10^{-7}	NUDT7	TRUE
17p13.2	4535314	rs34210653	1.6×10^{-6}	0	1.000	rs34210653	any_animal_allergy	1.3×10^{-10}	[PAFAH1B1]	TRUE
17p13.2	4535314	rs34210653	1.6×10^{-6}	0	1.000	rs34210653	any_animal_allergy	1.3×10^{-10}	[ALOX15]	TRUE
17p13.1	7387350	rs67486302	2.2×10^{-5}	-25813	0.608	rs55785967	seasonal_allergies_broad	5.6×10^{-7}	[ALOX15]	TRUE
17p13.1	7386428	rs11078680	1.1×10^{-5}	-10017	0.792	rs7209131	height	2.6×10^{-20}	CHRN1-[]-ZBTB4	TRUE
17p13.1	7386428	rs11078680	1.1×10^{-5}	-2444	0.940	rs8076642	myopia_v_hyperopia	4.3×10^{-9}	[ZBTB4]	TRUE
17p13.1	7386428	rs11078680	1.1×10^{-5}	-2444	0.940	rs8076642	glasses_any	1.6×10^{-8}	[ZBTB4]	FALSE
17p12	11188558	rs56142648	9.8×10^{-6}	742	0.884	rs9897249	nearsightedness	7.9×10^{-15}	TNFSF12-TNFSF13	FALSE
17p12	11188558	rs56142648	9.8×10^{-6}	742	0.884	rs9897249	any_plant_allergy	9.8×10^{-7}	[SHISA6]	TRUE
17p12	11188558	rs56142648	9.8×10^{-6}	742	0.884	rs9897249	seasonal_allergies_broad	4.4×10^{-7}	[SHISA6]	TRUE
17p12	11196479	rs9303035	6.5×10^{-5}	764	0.993	rs8066969	depression_anxiety_meds	3.9×10^{-7}	[SHISA6]	TRUE
17q12	37829570	rs903504	7.9×10^{-6}	32148	0.542	rs2952155	chronic_bronchitis	4.9×10^{-10}	[ERBB2]	TRUE
17q12	37912377	rs12946510	2.6×10^{-13}	-18893	0.514	rs4795393	crohns_or_ulcerative_colitis	5.3×10^{-7}	MIEN1-[]-GRB7	FALSE
17q12	38067020	rs4795400	2.8×10^{-15}	-40851	0.791	rs11655198	any_asthma	1.0×10^{-63}	[ZPBP2]	TRUE
17q12	38067020	rs4795400	2.8×10^{-15}	-34832	0.870	rs12939457	any_plant_allergy	1.6×10^{-12}	[ZPBP2]	TRUE
17q12	38067020	rs4795400	2.8×10^{-15}	-34832	0.870	rs12939457	hayfever_all	1.7×10^{-19}	[ZPBP2]	TRUE
17q12	38067020	rs4795400	2.8×10^{-15}	-4078	0.922	rs35196450	any_food_allergy	9.8×10^{-8}	[GSDMB]	TRUE
17q12	38067020	rs4795400	2.8×10^{-15}	-4078	0.922	rs35196450	mold_allergy	2.8×10^{-12}	[GSDMB]	TRUE
17q12	38067020	rs4795400	2.8×10^{-15}	-4078	0.922	rs35196450	seasonal_allergies_broad	1.5×10^{-14}	[GSDMB]	TRUE
17q12	38062943	17:38062943:CA_C	5.5×10^{-15}	0	1.000	17:38062943:CA_C	iqb.took_meds_asthma_or_lung	1.2×10^{-36}	[GSDMB]	TRUE
17q12	38062943	17:38062943:CA_C	5.5×10^{-15}	0	1.000	17:38062943:CA_C	juvenile_allergic_asthma	2.5×10^{-32}	[GSDMB]	TRUE
17q12	38062943	17:38062943:CA_C	5.5×10^{-15}	0	1.000	17:38062943:CA_C	tree_nuts_allergy	6.2×10^{-8}	[GSDMB]	TRUE
17q12	38067020	rs4795400	2.8×10^{-15}	-780	0.822	rs2290400	juvenile_asthma	1.0×10^{-28}	[GSDMB]	TRUE
17q12	38067020	rs4795400	2.8×10^{-15}	1023	0.818	rs869402	allergic_asthma	2.5×10^{-23}	[GSDMB]	TRUE
17q12	38067020	rs4795400	2.8×10^{-15}	1494	0.818	rs1011082	any_animal_allergy	4.1×10^{-19}	[GSDMB]	TRUE
17q12	38067020	rs4795400	2.8×10^{-15}	6948	0.943	rs9303279	dust_mites_allergy	4.9×10^{-15}	[GSDMB]	TRUE
17q21.1	38121993	rs3894194	1.5×10^{-10}	1251	0.777	rs5820312	nonallergic_asthma	1.5×10^{-8}	[GSDMA]	TRUE
17q21.32	47328183	rs28397663	4.3×10^{-8}	-47882	0.578	rs4794029	nearsightedness	1.0×10^{-8}	B4GALNT2--[]-	FALSE
17q21.32	47328183	rs28397663	4.3×10^{-8}	-7765	0.620	rs36006455	nearsightedness	1.0×10^{-8}	GN2	FALSE
17q21.32	47328183	rs28397663	4.3×10^{-8}	0	1.000	rs36006455	glasses_any	5.4×10^{-7}	PHOSPHO1--[]-	FALSE
17q21.32	47328183	rs28397663	4.3×10^{-8}	0	1.000	rs28397663	dust_mites_allergy	5.9×10^{-7}	FLJ40194	TRUE
17q21.32	47328183	rs28397663	4.3×10^{-8}	0	1.000	rs28397663	seasonal_allergies_broad	4.2×10^{-7}	[FLJ40194]	TRUE
17q21.32	47328183	rs28397663	4.3×10^{-8}	76445	0.889	rs62076439	any_animal_allergy	2.0×10^{-10}	[ZNF652]	TRUE
17q21.32	47328183	rs28397663	4.3×10^{-8}	76445	0.889	rs62076439	any_asthma	5.1×10^{-7}	[ZNF652]	TRUE
17q21.33	47425096	rs202005205	2.4×10^{-6}	-16621	0.957	rs12937923	iqb.excess_hair	5.6×10^{-8}	[ZNF652]	TRUE
17q21.32	47328183	rs28397663	4.3×10^{-8}	94327	0.900	rs35073649	any_cvd	1.5×10^{-9}	[ZNF652]	TRUE
17q21.33	47444572	17:47444572:A_AG	3.5×10^{-5}	0	1.000	17:47444572:A_AG	blood_pressure_meds	4.1×10^{-10}	ZNF652-[]--PHB	TRUE
17q21.33	47444572	17:47444572:A_AG	3.5×10^{-5}	0	1.000	17:47444572:A_AG	high_blood_pressure	4.4×10^{-10}	ZNF652-[]--PHB	TRUE
17q23.3	61979122	rs2665820	8.7×10^{-5}	3	0.995	rs2727347	penicillin_allergy	3.8×10^{-7}	CSH1-[]-CSHL1	TRUE
17q24.2	66015108	rs201402027	2.6×10^{-5}	-67468	0.515	rs12449442	weight	4.6×10^{-7}	[BPTF]	TRUE
19p13.3	1162376	rs11084888	9.6×10^{-6}	-2199	0.716	rs60634368	height	2.9×10^{-7}	[SBN02]	FALSE
19p13.3	1162376	rs11084888	9.6×10^{-6}	4236	0.891	rs201183181	any_plant_allergy	2.3×10^{-7}	[SBN02]	TRUE
19p13.3	1162376	rs11084888	9.6×10^{-6}	4236	0.891	rs201183181	hayfever_all	5.4×10^{-7}	[SBN02]	TRUE
19p13.3	1219553	rs11084889	4.9×10^{-5}	-15336	0.906	rs7254997	insect_allergy	3.9×10^{-7}	SBN02-[]-STK11	TRUE
19p13.3	1219553	rs11084889	4.9×10^{-5}	-11481	0.937	rs7256801	any_animal_allergy	7.6×10^{-7}	[STK11]	TRUE
19p13.11	18125240	rs73026614	4.6×10^{-5}	456	0.575	rs437940	iqb.sweat_during_workout	1.1×10^{-7}	ARRDC2[]--	FALSE
19q13.11	33721455	rs10414065	1.9×10^{-5}	0	1.000	rs10414065	any_animal_allergy	6.1×10^{-11}	IL12RB1	FALSE
19q13.11	33721455	rs10414065	1.9×10^{-5}	0	1.000	rs10414065	any_food_allergy	4.3×10^{-8}	SLC7A10-[]--	TRUE
19q13.11	33721455	rs10414065	1.9×10^{-5}	0	1.000	rs10414065	dust_mites_allergy	3.5×10^{-8}	CEBPA	TRUE
19q13.11	33721455	rs10414065	1.9×10^{-5}	0	1.000	rs10414065	other_food_allergy	3.5×10^{-7}	SLC7A10-[]--	TRUE
20q13.2	52184944	rs1555926	5.4×10^{-5}	-5122	0.500	rs2766670	dust_mites_allergy	1.6×10^{-7}	CEBPA	TRUE
20q13.33	62288752	rs3761124	1.9×10^{-6}	-12908	0.764	rs6010986	myopia_v_hyperopia	1.5×10^{-7}	SLC7A10-[]--	TRUE
20q13.33	62288752	rs3761124	1.9×10^{-6}	-10830	0.662	rs4809319	nearsightedness	7.5×10^{-9}	TSH22-[]-	FALSE
20q13.33	62288752	rs3761124	1.9×10^{-6}	26650	0.704	rs201926957	seasonal_allergies_broad	1.9×10^{-7}	ZNF217	TRUE
20q13.33	62288752	rs3761124	1.9×10^{-6}	39990	0.747	rs909341	eczema	2.1×10^{-19}	[STMN3]	TRUE
20q13.33	62288752	rs3761124	1.9×10^{-6}	60935	0.582	rs202143810	prostate_cancer	1.0×10^{-7}	[TMN3]	FALSE
20q13.33	62315593	rs3787092	2.6×10^{-5}	37044	0.518	rs8125514	height	2.5×10^{-7}	[RTEL1]	TRUE
21q22.2	40644110	rs145104523	9.1×10^{-5}	-88549	0.988	rs117143374	age_first_menses	4.4×10^{-8}	[TNFRSF6B]	TRUE
21q22.2	40594877	21:40594877:A_AG	1.7×10^{-6}	0	1.000	21:40594877:A_AG	any_plant_allergy	6.0×10^{-7}	[ZGPAT]	TRUE
21q22.2	40685662	rs11910906	5.3×10^{-6}	-64259	0.598	rs35265000	ever_tobacco_user	2.3×10^{-10}	[ZGPAT]	TRUE
21q22.2	40685662	rs11910906	5.3×10^{-6}	23300	0.528	rs201178342	iqb.age_started_reading	7.7×10^{-7}	BRWD1-IT2--[]-	TRUE
21q22.3	44840873	rs75559179	1.3×10^{-5}	5553	0.824	rs76081789	any_plant_allergy	5.4×10^{-7}	HMG1	TRUE
21q22.3	44840873	rs75559179	1.3×10^{-5}	5553	0.824	rs76081789	seasonal_allergies_broad	1.3×10^{-7}	[SIK1]	TRUE
22q13.2	41545623	rs117597170	9.5×10^{-6}	0	1.000	rs117597170	dust_mites_allergy	2.6×10^{-8}	[SIK1]	TRUE
22q13.2	42945888	rs136986	2.2×10^{-5}	-4498	0.506	rs136978	any_animal_allergy	4.8×10^{-7}	[EP300]	TRUE
22q13.2	42945888	rs136986	2.2×10^{-5}	-4498	0.506	rs136978	any_plant_allergy	6.6×10^{-8}	RRP7A--[]-	TRUE

22q13.2	42945888	rs136986	2.2×10^{-5}	-4498	0.506	rs136978	seasonal_allergies_broad	4.7×10^{-9}	RRP7A--[]- SERHL2 RRP7A--[]- SERHL2	TRUE
22q13.2	42945888	rs136986	2.2×10^{-5}	-1910	0.512	rs200044896	leg_jiggle	9.9×10^{-8}	SERHL2	
Xq28	155176144	rs7053404	1.6×10^{-6}	0	1.000	rs7053404	any_animal_allergy	7.6×10^{-7}	VAMP7-[]--IL9R	TRUE
Xq28	155185332	rs74887446	1.3×10^{-6}	0	1.000	rs74887446	mold_allergy	1.5×10^{-8}	VAMP7-[]--IL9R	TRUE
Xq28	155185332	rs74887446	1.3×10^{-6}	0	1.000	rs74887446	seasonal_allergies_broad	8.3×10^{-7}	VAMP7-[]--IL9R	TRUE

Regional Association Plots

